XR-H592WG/H593WG

SERVICE MANUAL

Photo: XR-H593WG

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Model Name Using Similar Mechanism	XR-H572A/H573A
Tape Transport Mechanism Type	MG-25H-136

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

FM/AM CASSETTE CAR STEREO

SONY®

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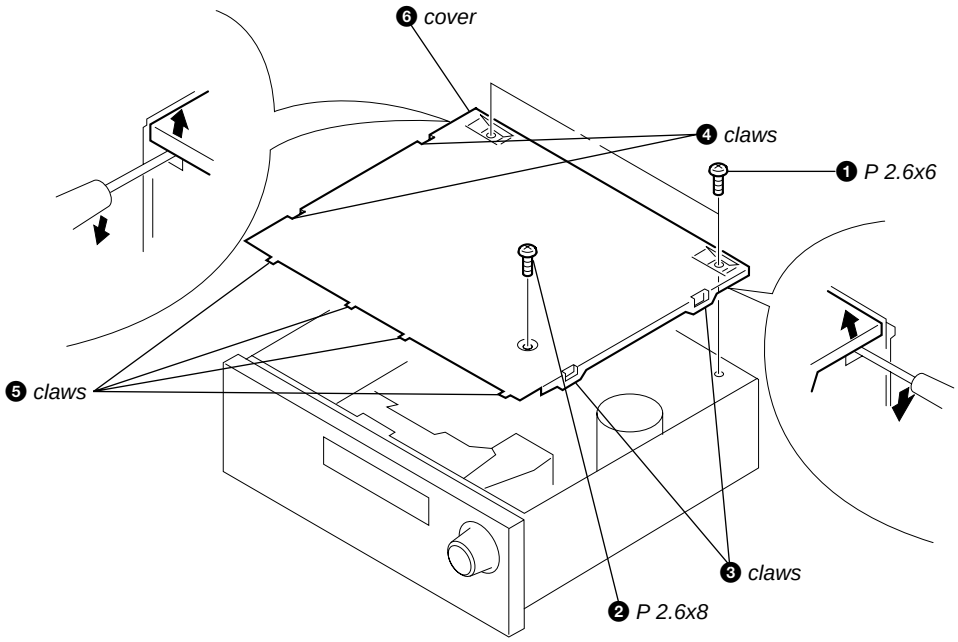
SECTION 1
DISASSEMBLY

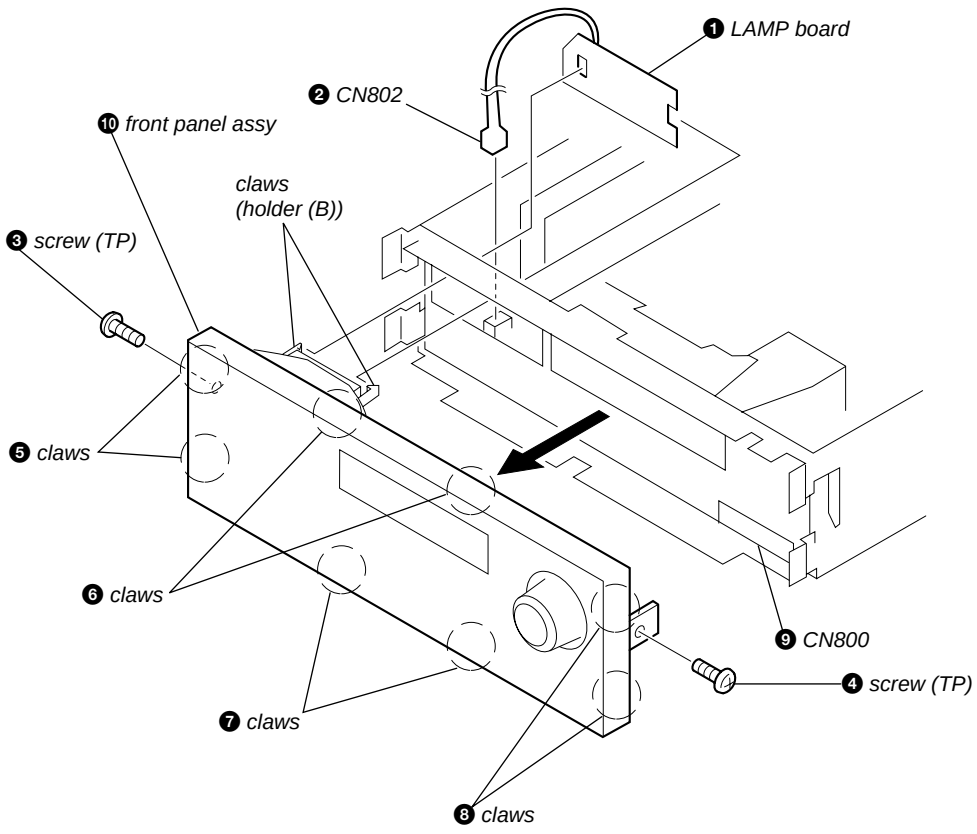
Note : Follow the disassembly procedure in the numerical order given.

1-1. COVER

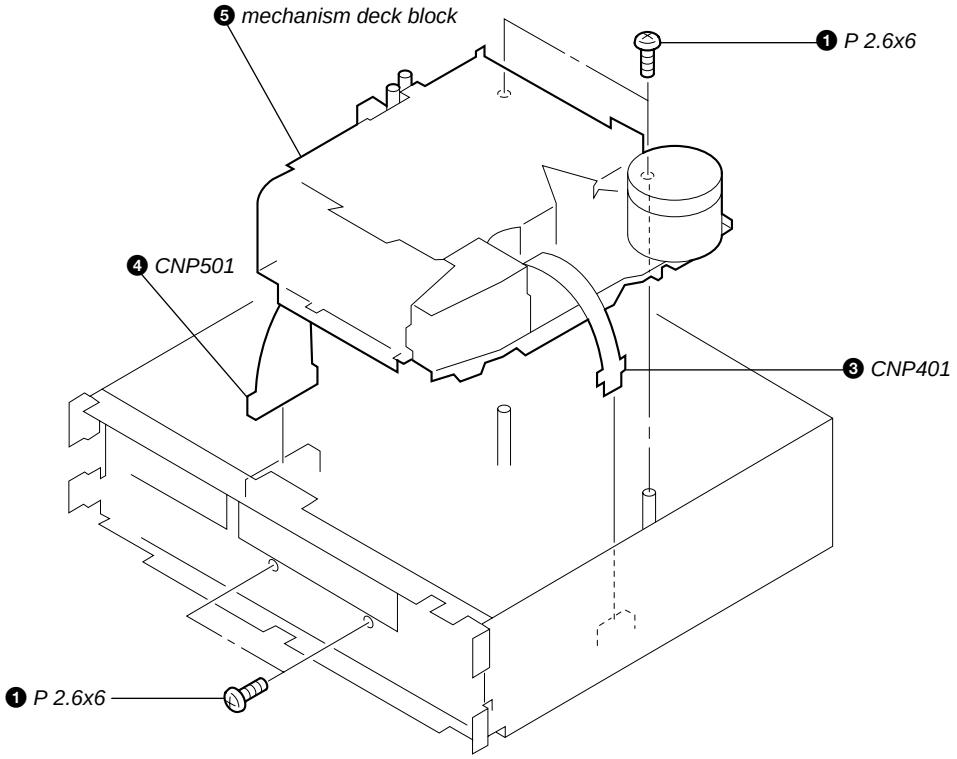


1-2. FRONT PANEL ASSY

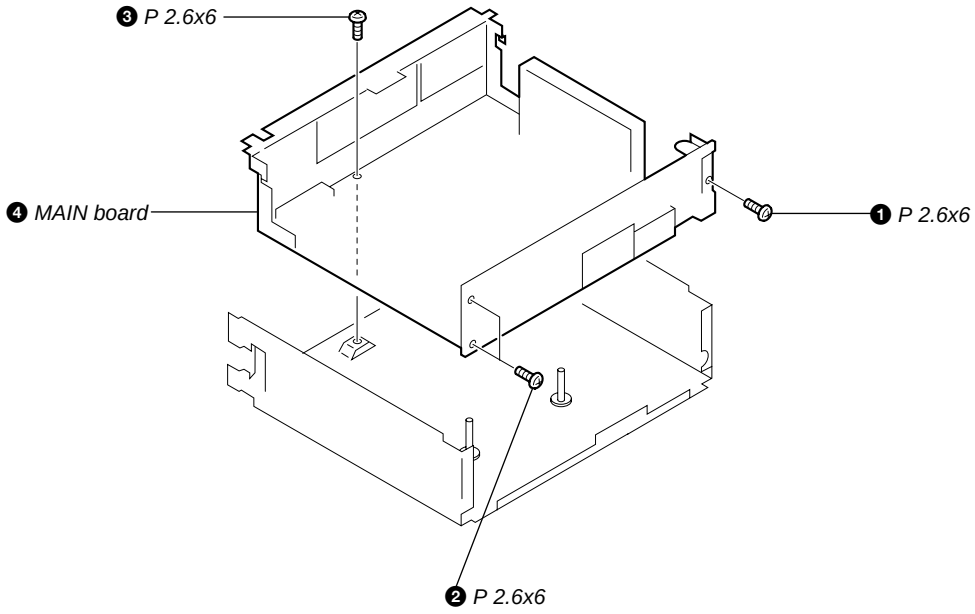
Note : When removing the LAMP board from the holder (B), take care not to bend or break the claw of the holder.



1-3. MECHANISM DECK BLOCK



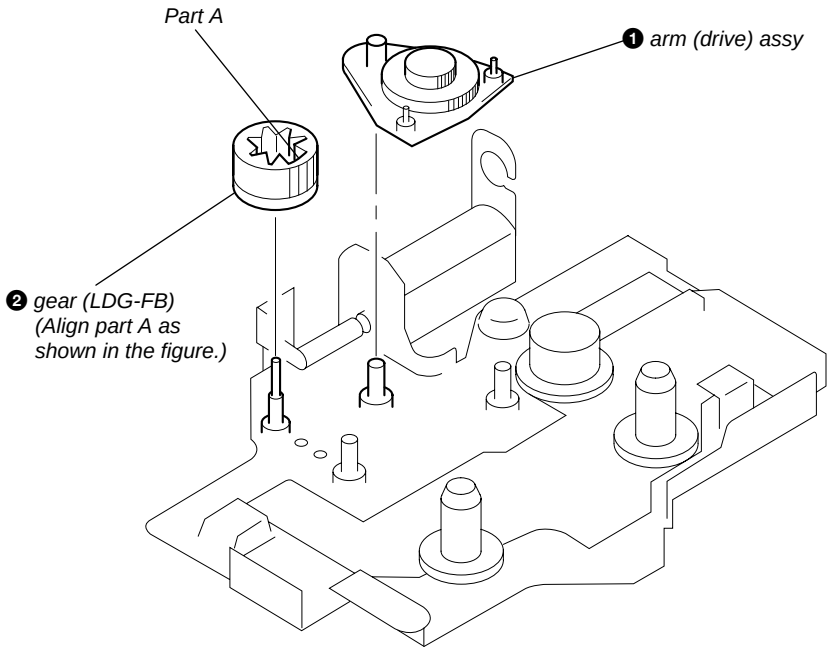
1-4. MAIN BOARD



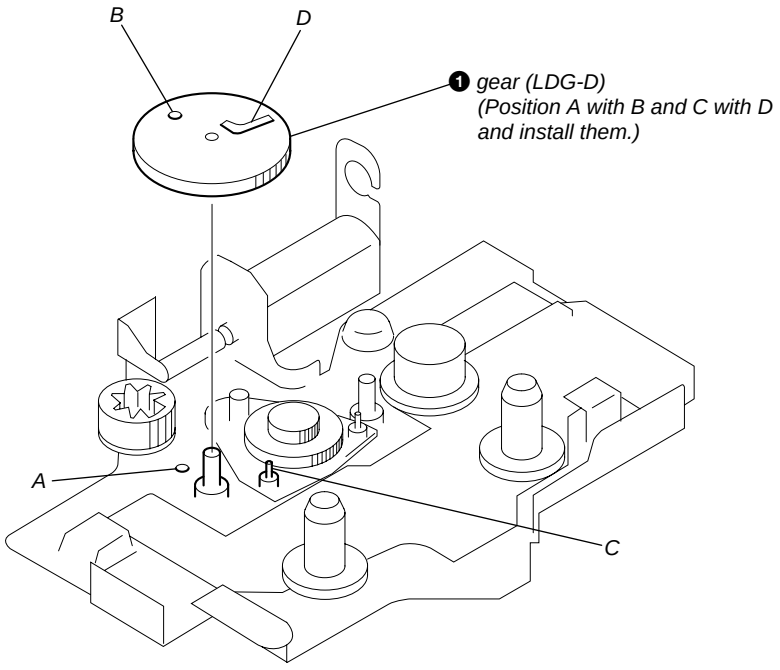
SECTION 2
ASSEMBLY OF MECHANISM DECK

Note : Follow the assembly procedure in the numerical order given.

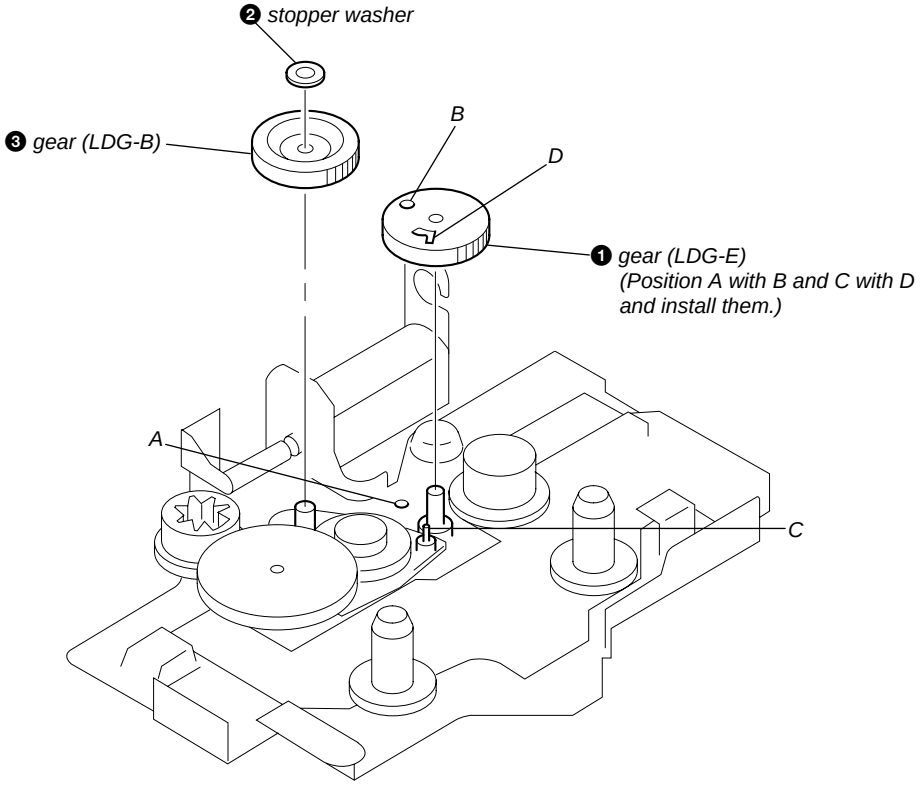
2-1. ARM (DRIVE) ASSY



2-2. GEAR (LDG-D)

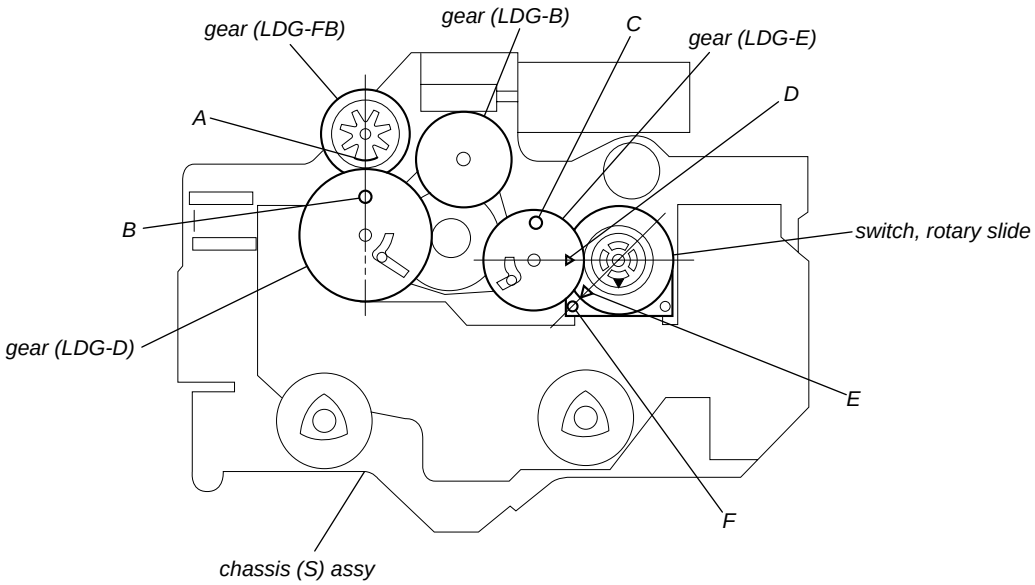


2-3. GEAR (LDG-B)

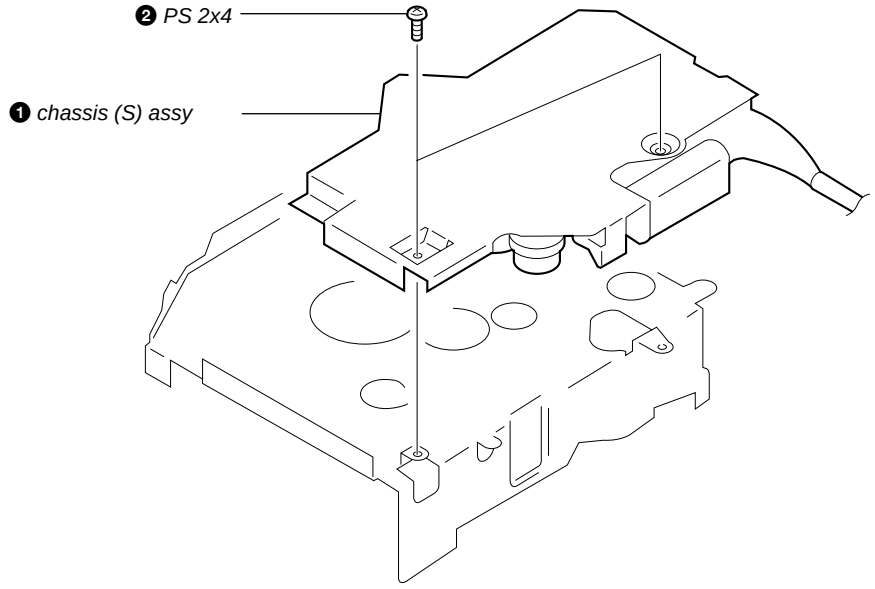


2-4. GEAR POSITION SETTING

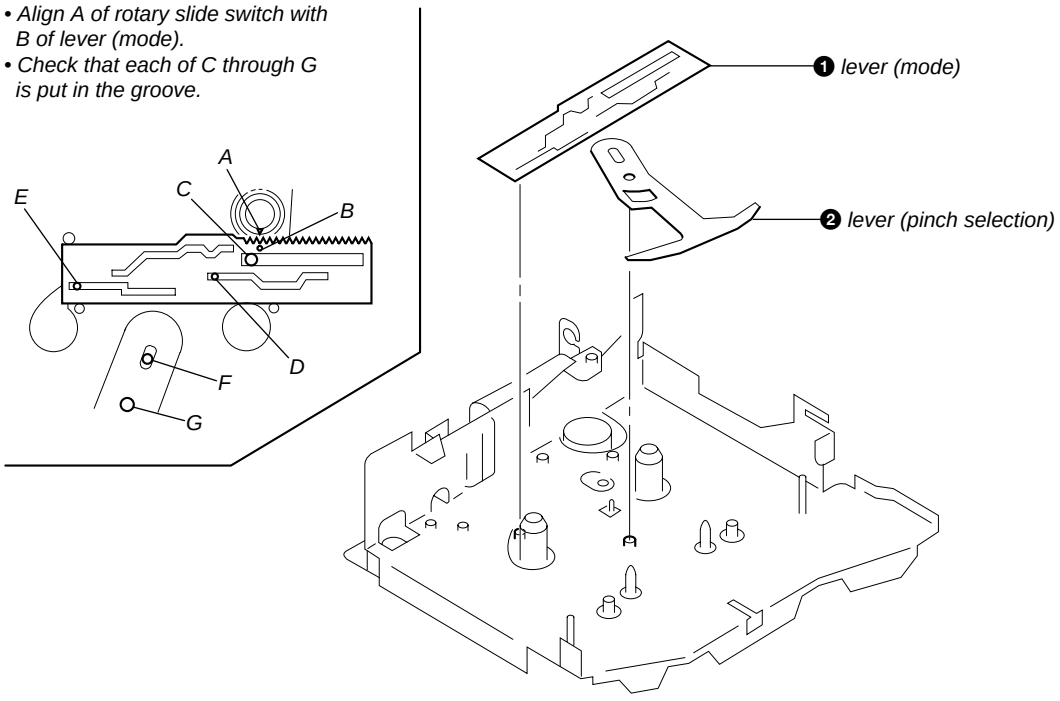
- *Align A with B.*
- *Align B with the hole in the chassis (S) assy.*
- *Align C with the hole in the chassis (S) assy.*
- *Face D to the rotary slide switch.*
- *Align E with F.*



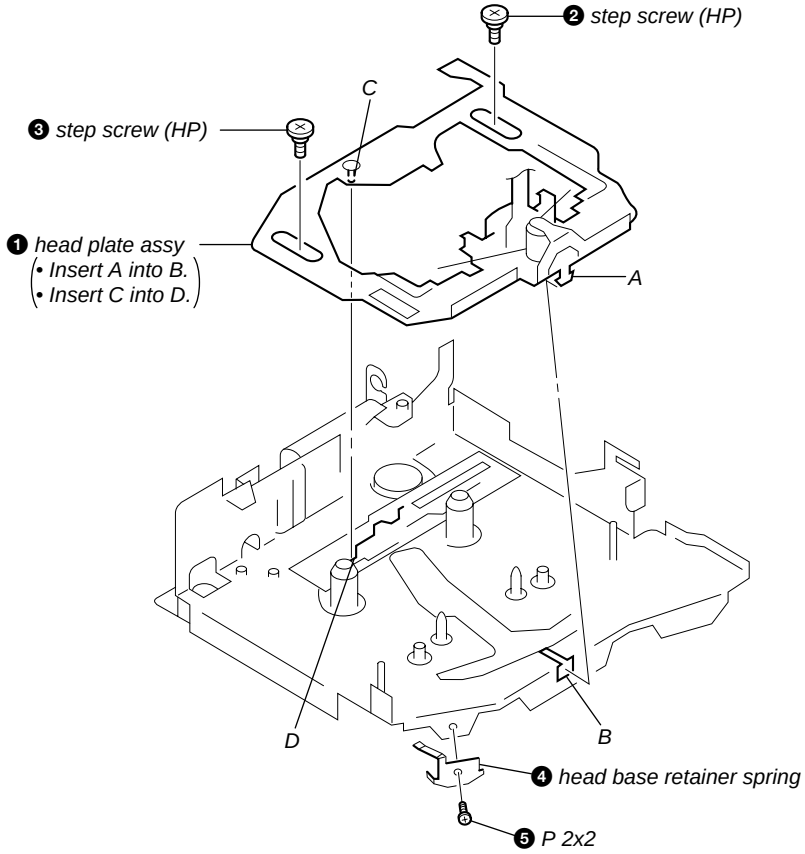
2-5. CHASSIS (S) ASSY



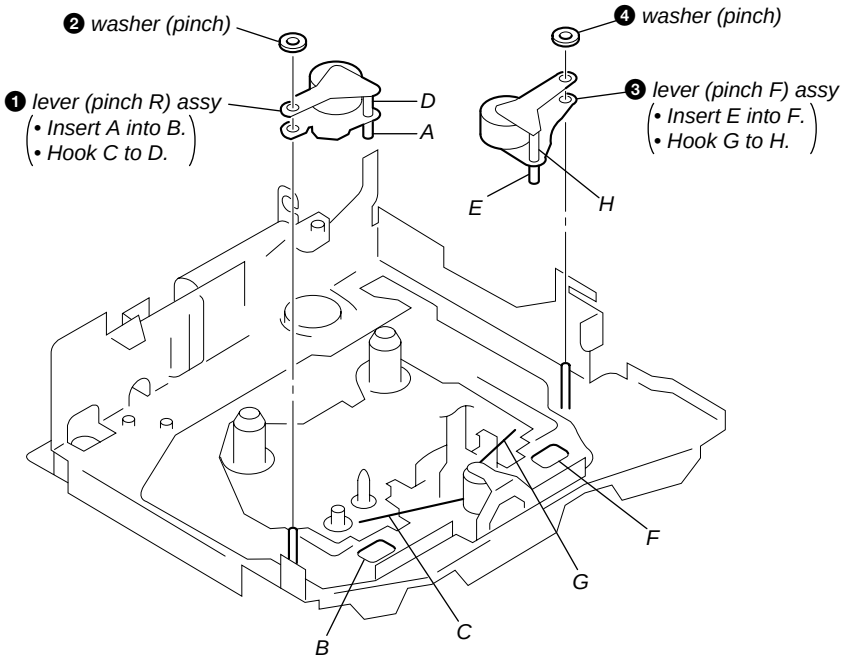
2-6. LEVER (MODE)



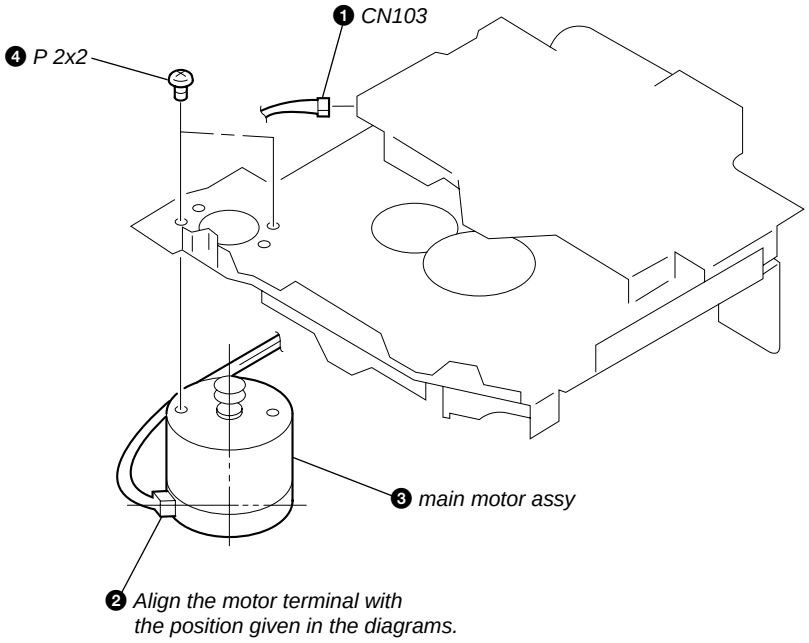
2-7. HEAD PLATE ASSY



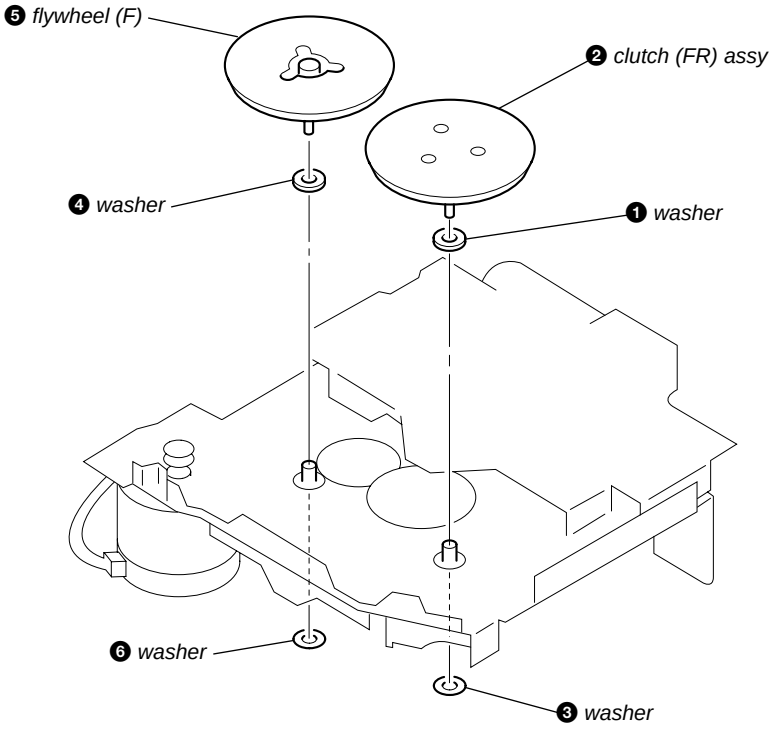
2-8. LEVER (PINCH) ASSY



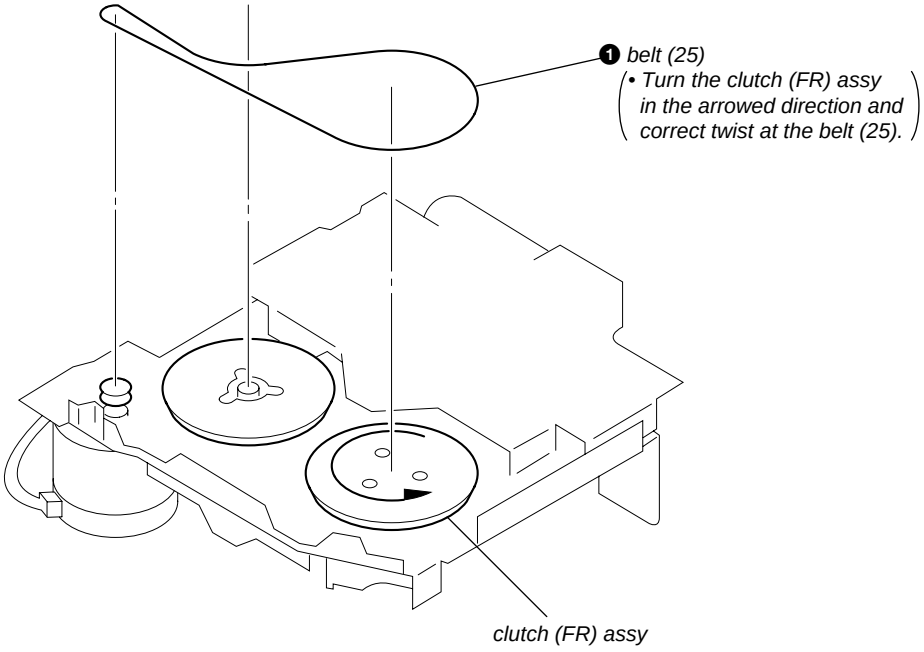
2-9. MAIN MOTOR ASSY



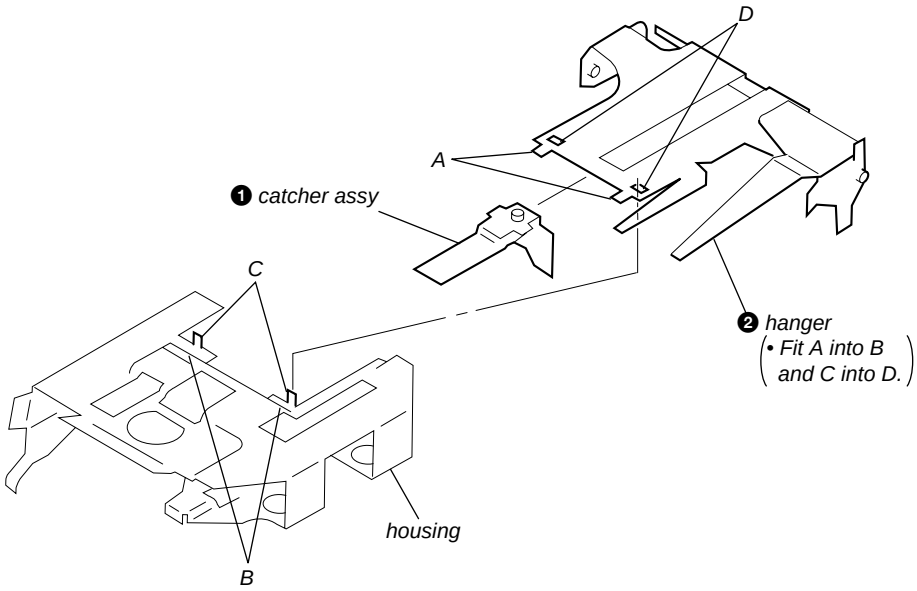
2-10. FLYWHEEL (F)



2-11. BELT (25)

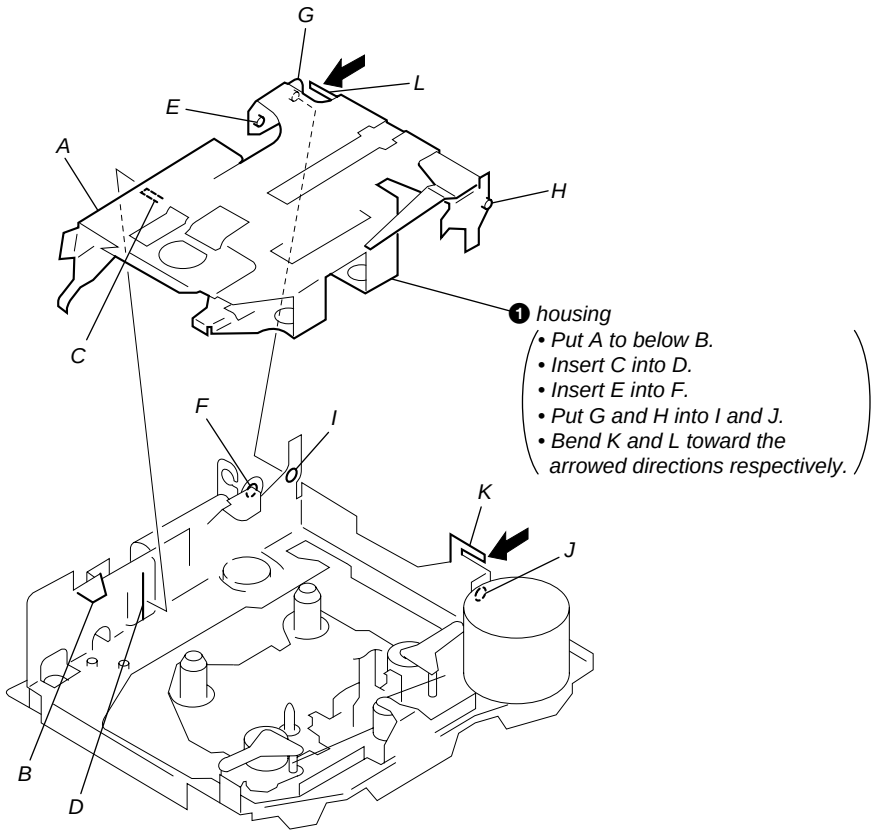


2-12. HANGER

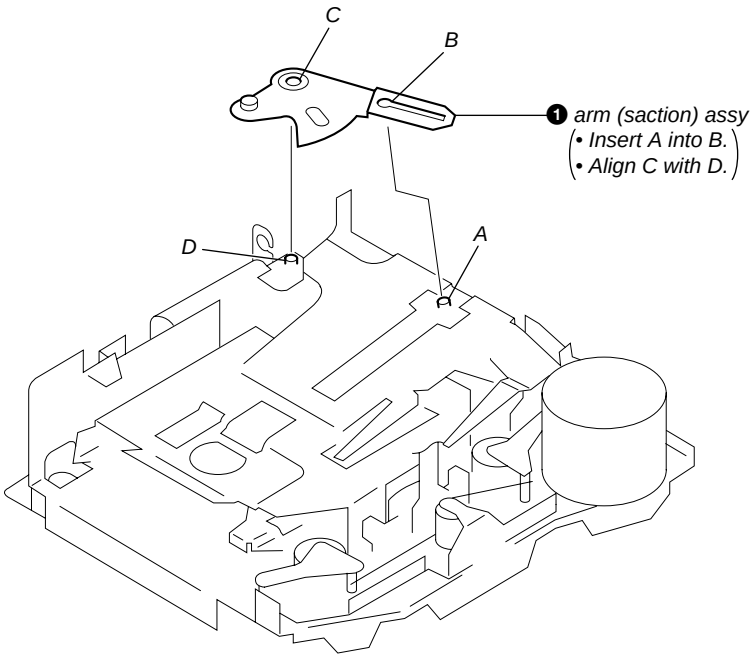


2-13. HOUSING

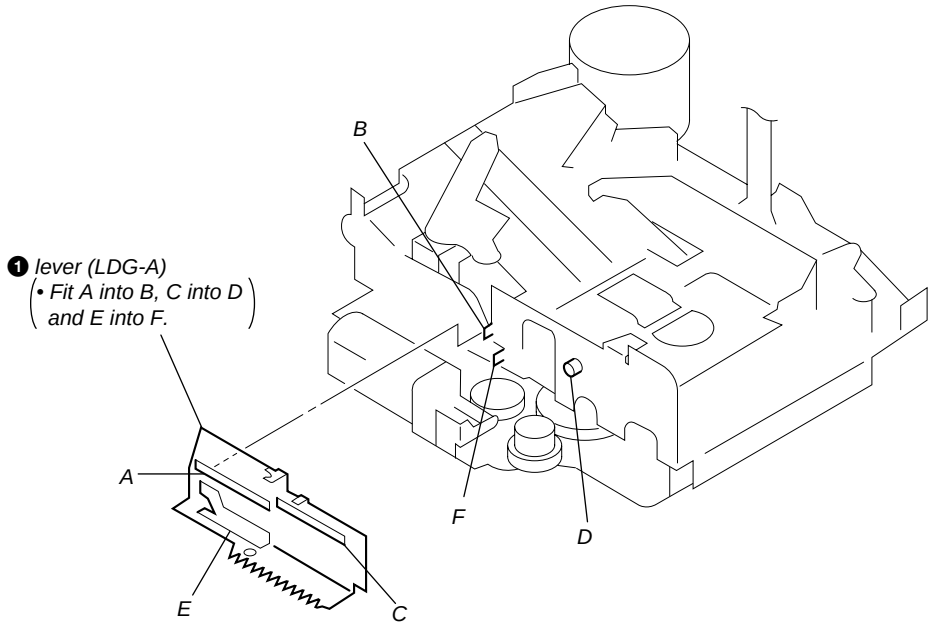
Note : Install the housing with care to avoid contact with the pinch roller and head.



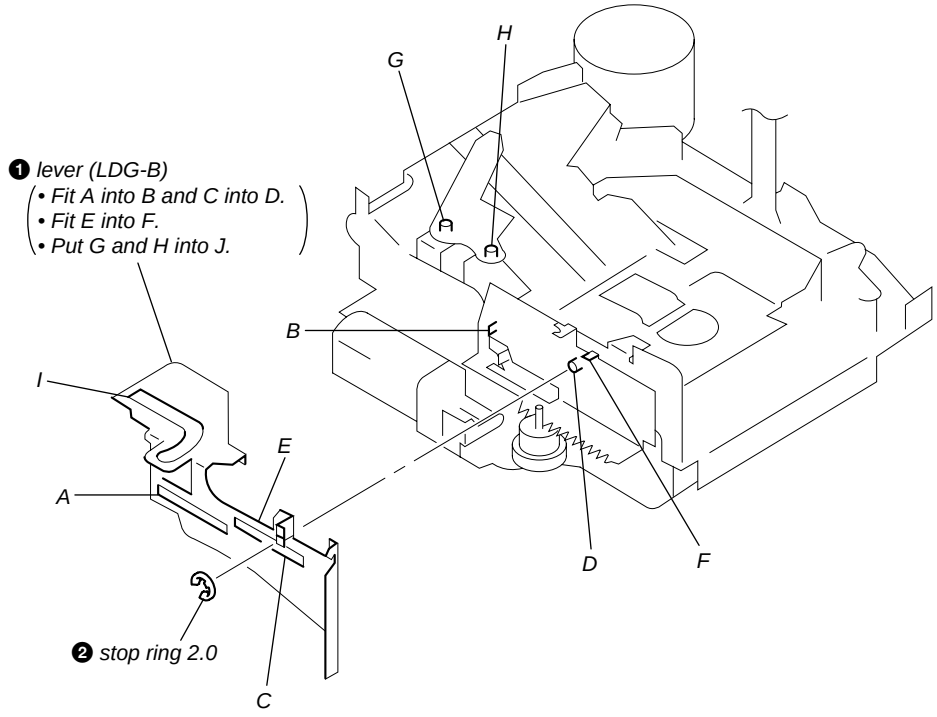
2-14. ARM (SUCTION) ASSY



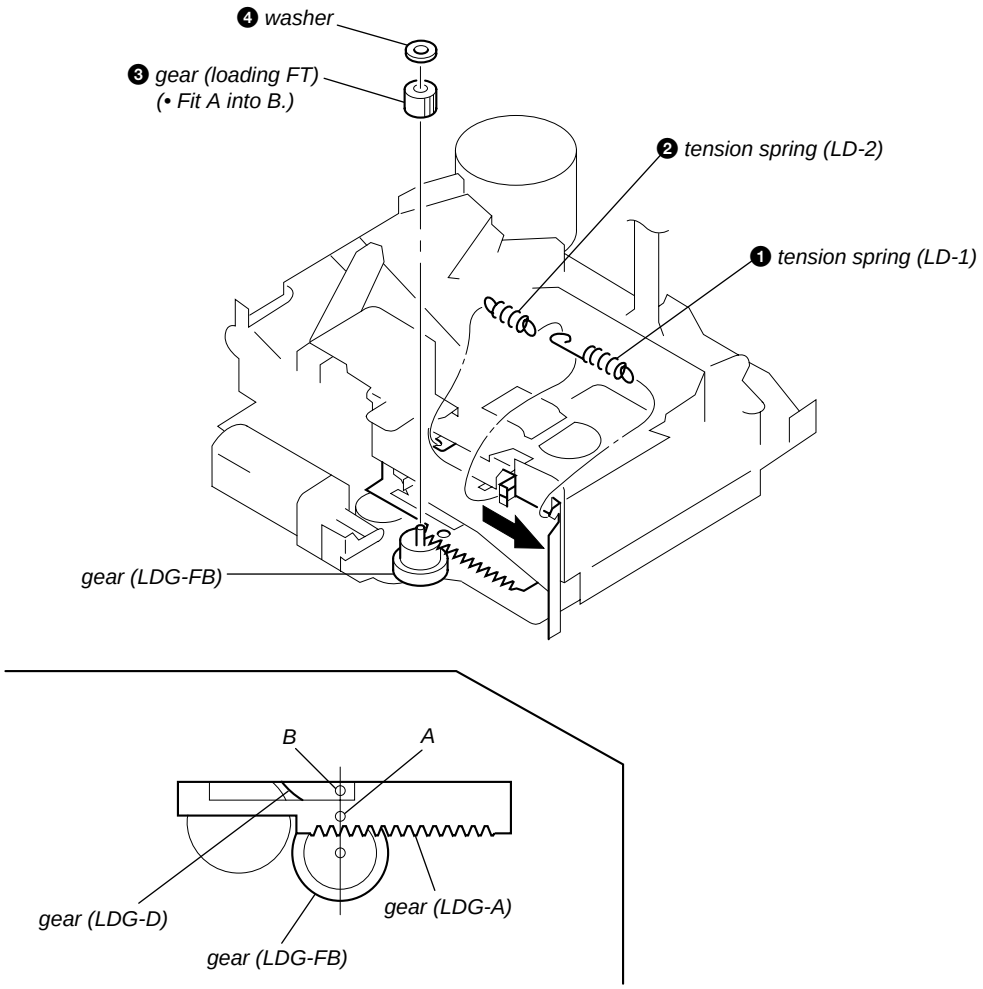
2-15. LEVER (LDG-A)



2-16. LEVER (LDG-B)



2-17. GEAR (LOADING FT)



SECTION 3
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment :
   PB head　　Pinch roller
   Idler　　Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After the adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4V).

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	39.3 – 78.4 mN • m 40 – 80 g • cm (0.56 – 1.11 oz • inch)
FWD Back Tension		0.05 – 0.49 mN • m 0.5 – 5.0 g • cm (0.01 – 0.07 oz • inch)
REV	CQ-102RC	39.3 – 78.4 mN • m 40 – 80 g • cm (0.56 – 1.11 oz • inch)
REV Back Tension		0.05 – 0.49 mN • m 0.5 – 5.0 g • cm (0.01 – 0.07 oz • inch)
FF, REW	CQ-201B	4.91 – 17.65 mN • m 50 – 180 g • cm (0.7 – 2.5 oz • inch)

Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 558.4 mN more than 60 g (more than 2.12 oz)
REV	CQ-403R	

SECTION 4
ELECTRICAL ADJUSTMENTS

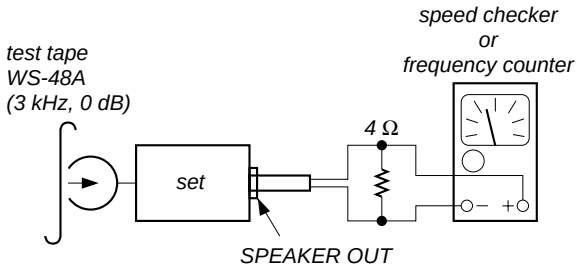
See the adjustment location from on page 17 for the adjustment.

TAPE SECTION　　**0 dB = 0.775 V**

Tape Speed Adjustment

Procedure :

1. Put the set into the FWD PB mode.



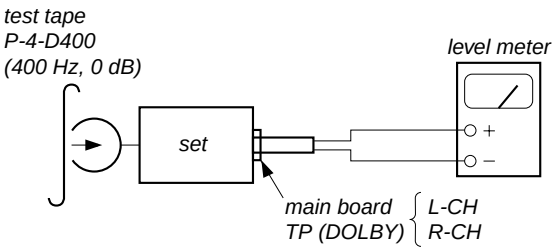
Specification : Constant speed

Speed checker	Frequency counter
–1 to + 3 %	2,970 to 3,090 Hz

Adjustment Location : See page 17.

DOLBY Level Adjustment

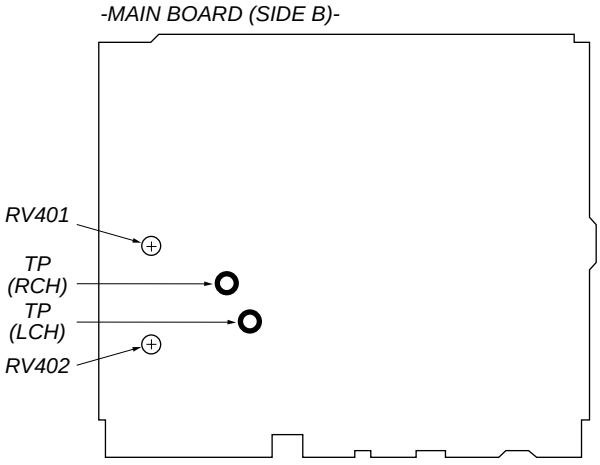
Setting :



Procedure :

1. Put the set into the FWD PB mode.
2. Adjust RV402 (L-CH) and RV401 (R-CH) so that level meter reading is –6.2 ± 1 dB (0.34 to 4.34 V).

Adjustment Location :



TUNER SECTION　0 dB = 1 µV

Cautions during repair

When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and AM Auto Scan/Stop Level adjustments can be performed easier than it in ordinary procedure.

<Set the Test Mode>

1. Supply 14.4 V DC to ACC and Back-up.
2. Push the PWR button to turn the tuner off. The tuner enters the time display mode.
3. Turn the ACC power OFF.
4. Turn the ACC power ON by pushing the ∧ and 1 keys simultaneously for longer than 4 seconds.
5. Push the 4 key twice within 1 second after releasing the ∧ and 1 keys. All indications on the display will light up.
6. Push the PWR button once. "TEST" will be displayed and the tuner enters the Test mode.
7. Push the 1 key once. The tuner enters the Tuner SD ADJ mode.

<Release the Test Mode>

1. Push the PWR button once while the tuner is in the Tuner SD ADJ mode. The Tuner SD ADJ mode will be released and the tuner will display "TEST" again.
2. Push the PWR button once while the tuner is displaying "TEST". The Test mode will be released.

Note on Adjustment

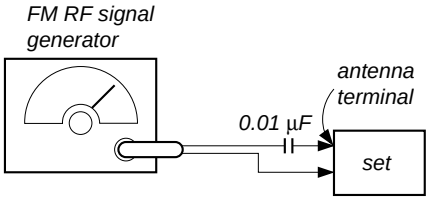
The adjustments of tuner section, should be performed according to the following sequence.

1. FM Auto Scan/Stop Level Adjustment
2. FM Noise Focus Adjustment
3. FM Stereo Separation Adjustment
4. AM Auto Scan/Stop Level Adjustment

FM Auto Scan/Stop Level Adjustment

Setting :

FM button : FM

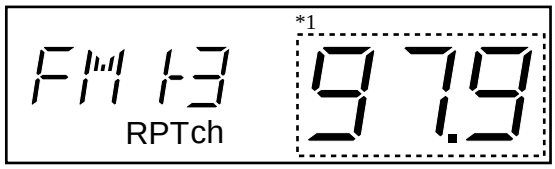


Carrier frequency : 97.9 MHz (H592WG)
: 98.0 MHz (H593WG)
Output level : 24 dB (15.8 µV)
Mode : mono
Modulation : 400 Hz, 22.5 kHz deviation (30%)

Procedure :

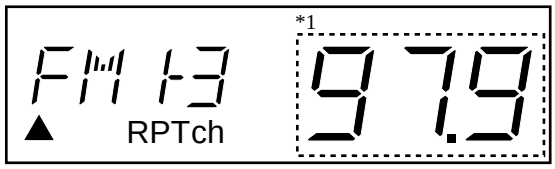
1. Set to the test mode (Tuner SD ADJ mode).
2. Push the FM button and set to FM.
3. Push the preset 3 button.

Display



4. Turn the volume RV2 on TU1 counterclockwise, and then adjust the volume by turning it clockwise little by little until the "▲" indication begins to flash on the display.

Display



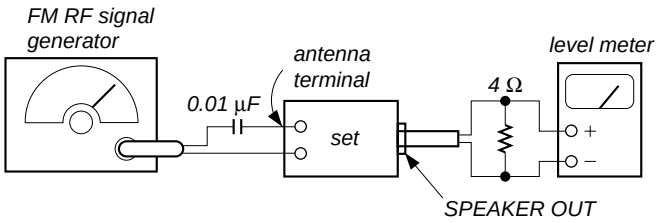
*1 : XR-H593WG has the "98.0" displayed.

Adjustment Location : See page 17.

FM Noise Focus Adjustment

Setting :

FM button : FM



Carrier frequency : 97.9 MHz (H592WG)
: 98.0 MHz (H593WG)
Output level : 60 dB (1 mV)
Mode : mono
Modulation : 400 Hz, 22.5 kHz deviation (30%)

Procedure :

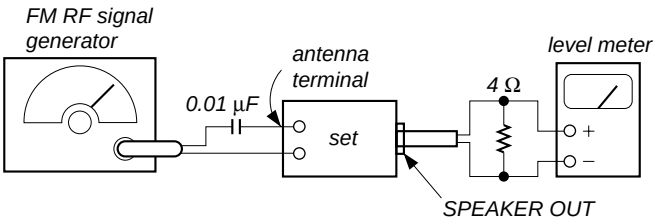
1. Tune the 97.9 MHz (H592WG) or 98.0 MHz (H593WG).
2. The then output level is supposing that (A) dB.
3. Adjust with the volume RV3 on TU1 so that the output level is (A) –18.5 ± 2 dB then signal generator input set to –20 dB.

Adjustment Location : See page 17.

FM Stereo Separation Adjustment

Setting :

FM button : FM



Carrier frequency : 97.9 MHz (H592WG)
: 98.0 MHz (H593WG)
Output level : 60 dB (1 mV)
Mode : stereo
Modulation : main : 400 Hz, 22.5 kHz deviation (30%)
sub : 400 Hz, 22.5 kHz deviation (30%)
19 kHz pilot : 7.5 kHz deviation (10%)

Procedure :

FM stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU1 for minimum reading.

L-CH stereo separation : Ⓐ – Ⓑ
R-CH stereo separation : Ⓒ – Ⓓ
The separations of both channels should be equal.

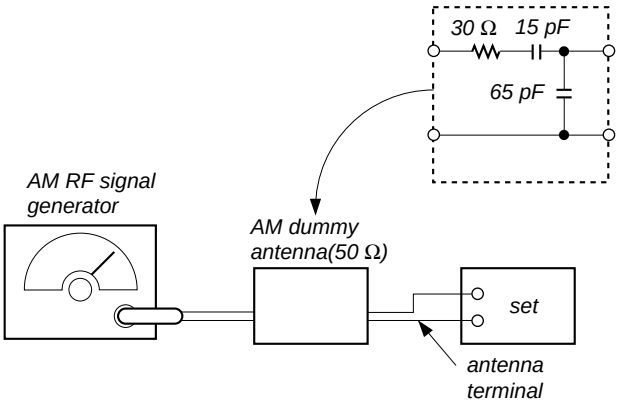
Specification : Separation more than 25 dB

Adjustment Location : See page 17.

AM Auto Scan/Stop Level Adjustment

Setting :

AM button : AM

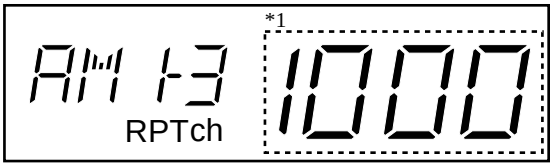


Carrier frequency : 1000 kHz (H592WG)
: 999 kHz (H593WG)
30% amplitude modulation by 400 Hz signal
output level : 35 dB (56.2 µV)

Procedure :

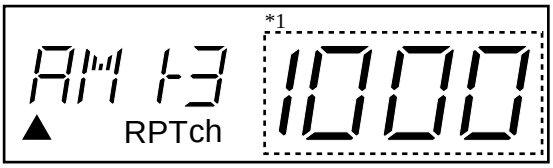
1. Set to the test mode (Tuner SD ADJ mode).
2. Push the AM button.
3. Push the preset 3 button.

Display



4. Turn the volume RV1 on TU1 counterclockwise, and then adjust the volume by turning it clockwise little by little until the "▲" indication begins to flash on the display.

Display

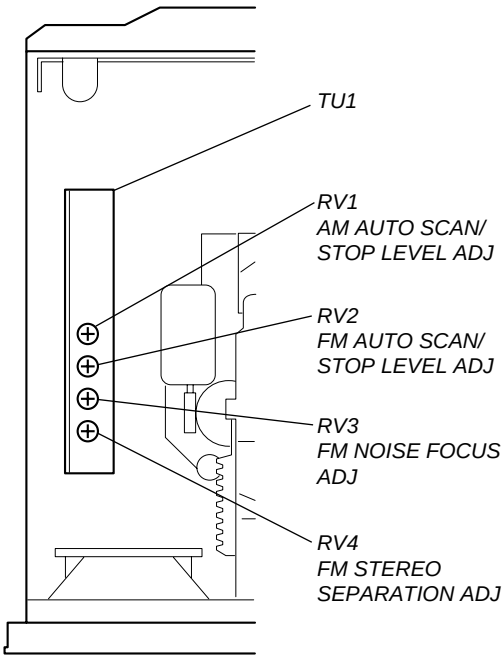


*1 : XR-H593WG has the "999" displayed.

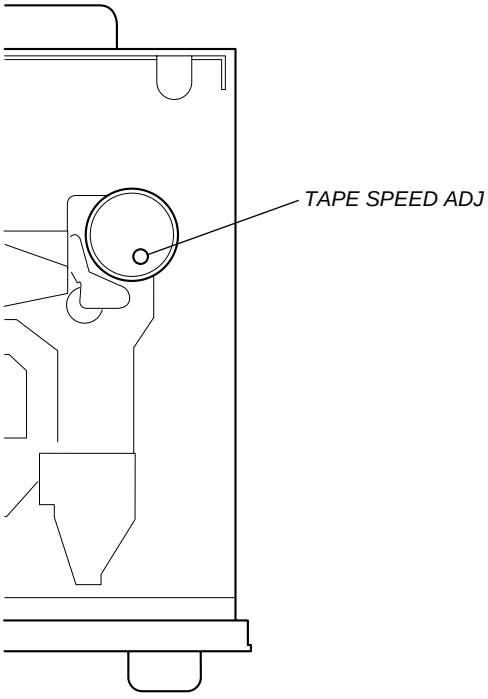
Adjustment Location : See page 17.

Adjustment Location : tuner unit (TU1)

– set upper view –



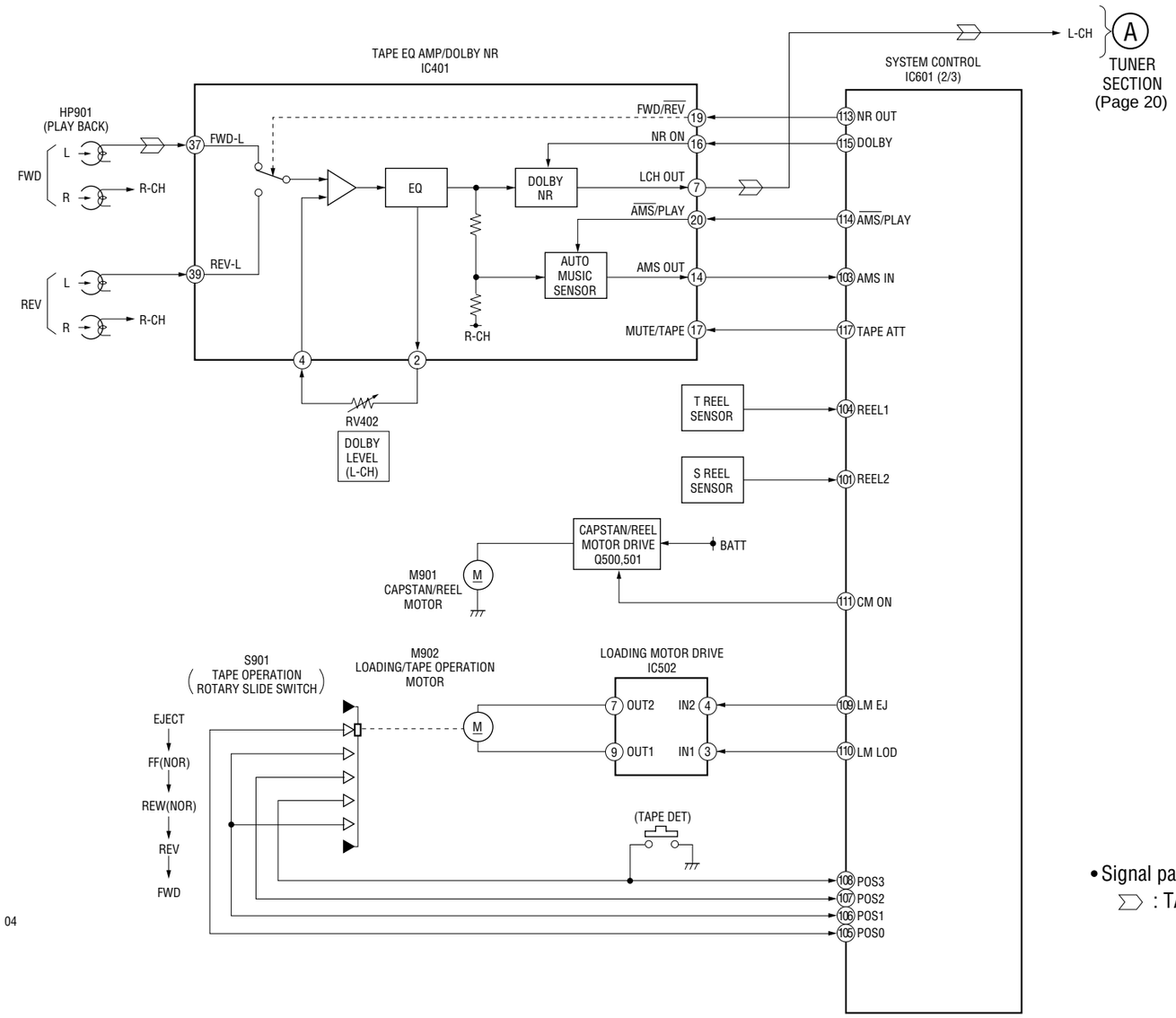
– set upper view –



MEMO

SECTION 5
DIAGRAMS

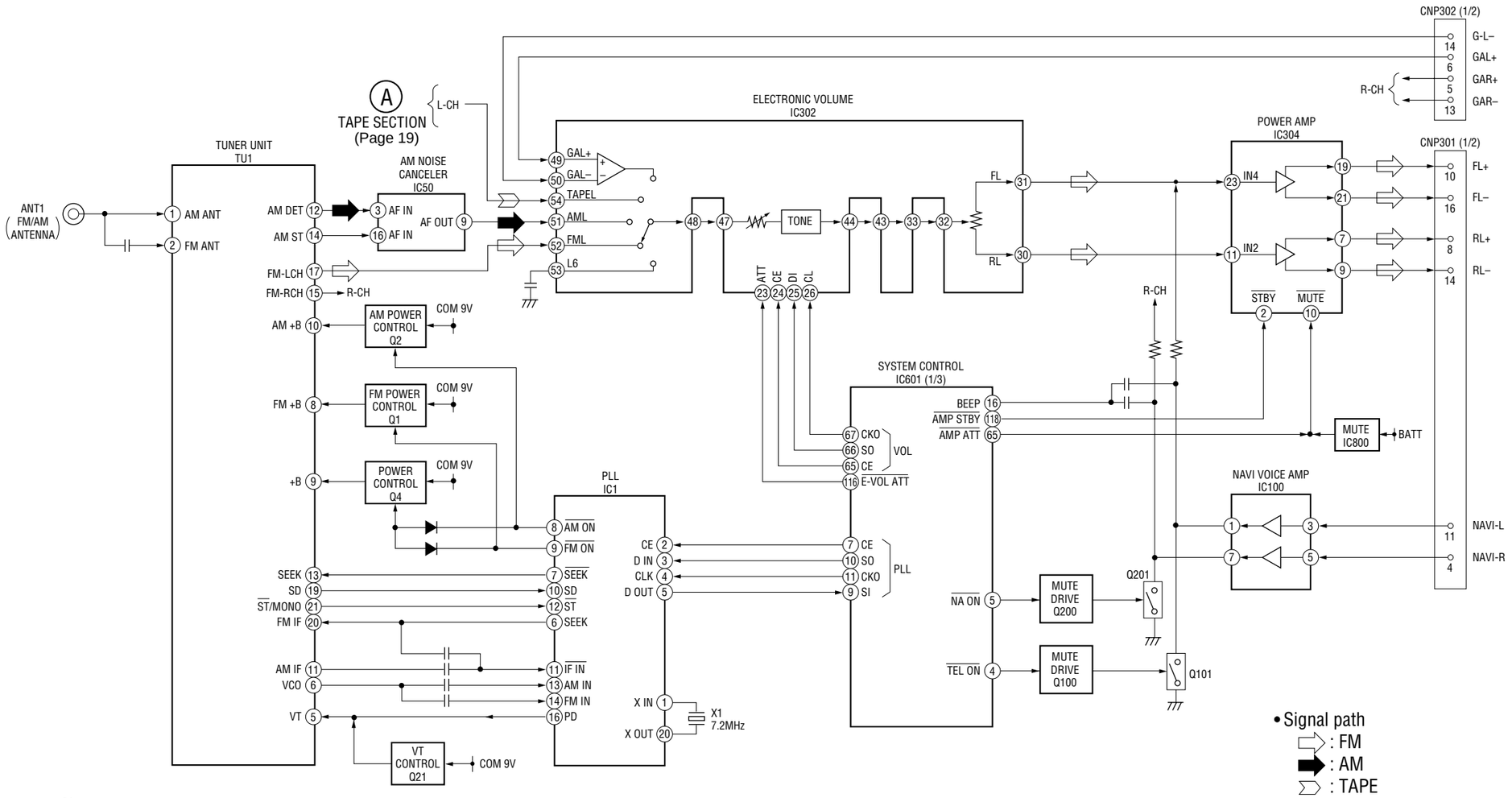
5-1. BLOCK DIAGRAM — TAPE SECTION —



• Signal path
: TAPE(PLAY)

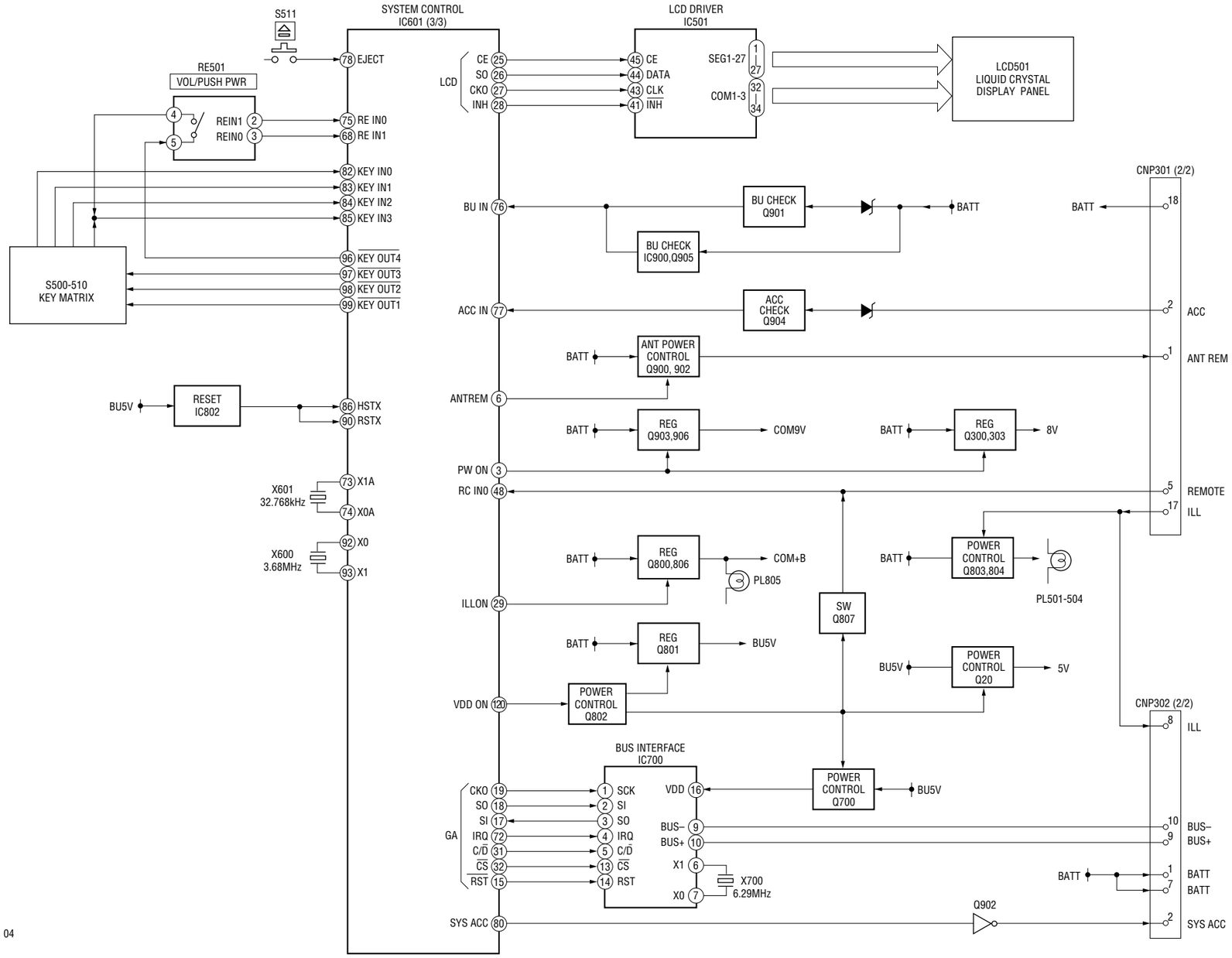
04

5-2. BLOCK DIAGRAM — TUNER SECTION —



04

5-3. BLOCK DIAGRAM — CONTROL SECTION —



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

for schematic diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM
  < > : PB
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  Σ : PB

for printed wiring boards:
Note:

- ○——○ : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▒▒ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.

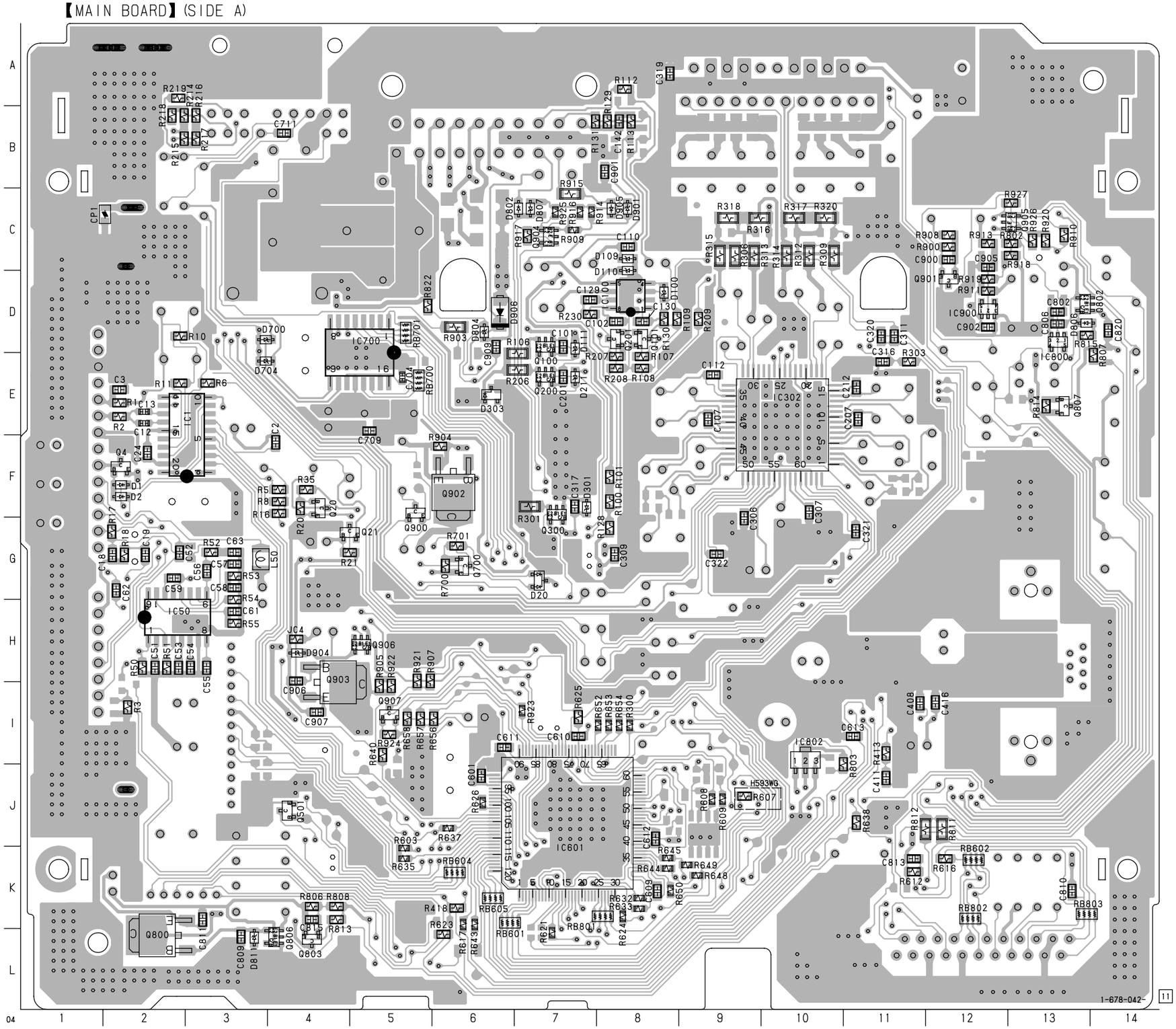
5-4. PRINTED WIRING BOARDS — MAIN SECTION —

• **Semiconductor Location**

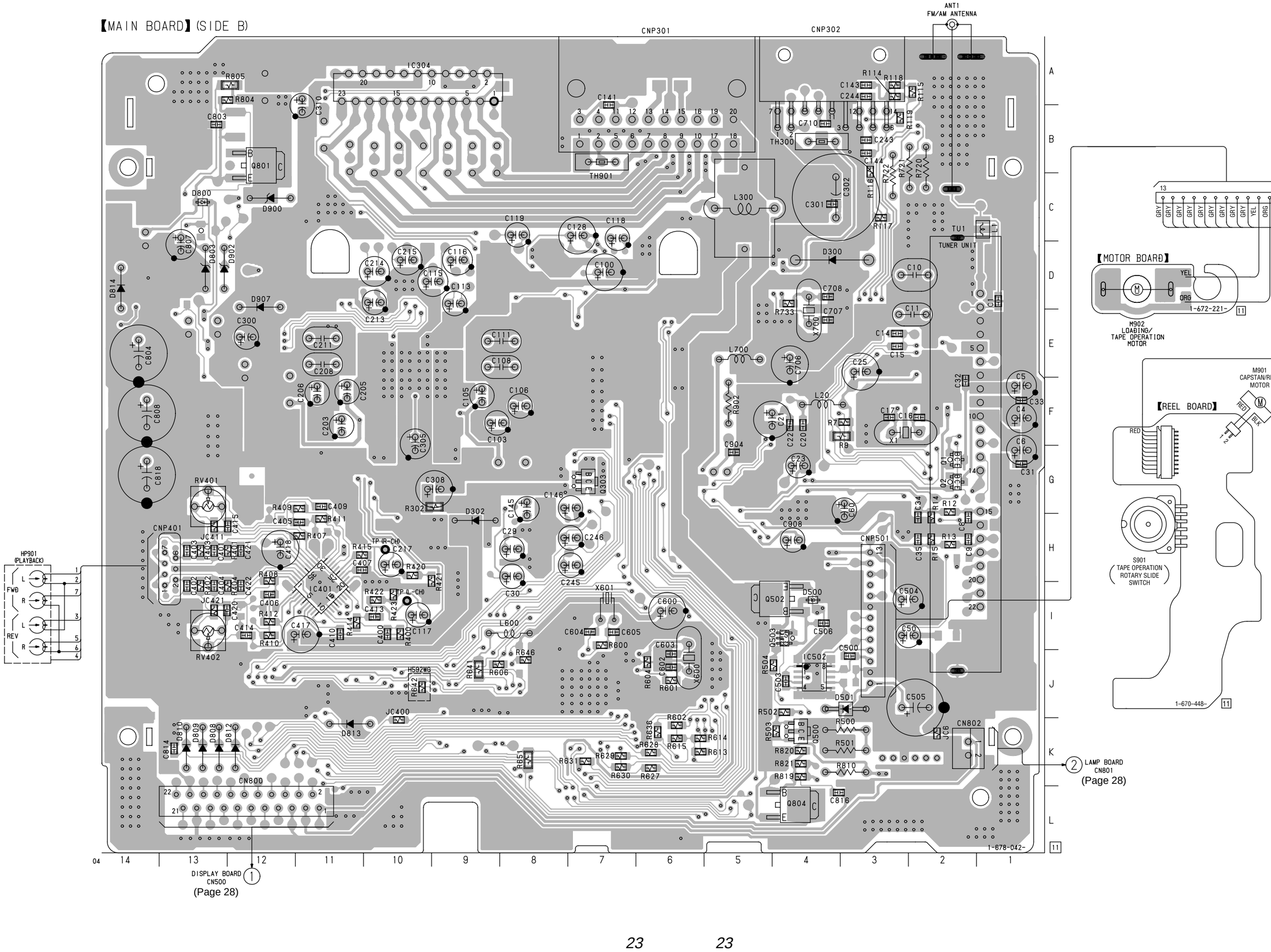
Ref. No.	Location	Ref. No.	Location
D1	F-2	(IC304)	A-10
D2	F-2	(IC401)	I-11
D20	G-7	(IC502)	J-4
D100	D-8	IC601	J-7
D109	C-8	IC700	D-5
D110	C-8	IC800	E-13
D111	D-7	IC802	I-10
D211	E-7	IC900	D-12
(D300)	D-4		
D301	F-7	(Q1)	G-2
(D302)	H-9	(Q2)	G-2
D303	E-6	Q4	F-2
(D500)	I-4	Q20	F-4
(D501)	J-3	Q21	G-5
D700	D-4	Q100	D-7
D704	E-3	Q101	D-8
(D800)	C-13	Q200	E-7
D802	C-6	Q201	D-8
(D803)	D-13	Q300	G-7
D804	D-6	(Q303)	G-7
D806	D-13	(Q500)	K-4
D807	C-7	Q501	J-4
(D808)	K-13	(Q502)	I-4
(D809)	K-13	(Q503)	I-4
(D810)	K-13	Q700	G-6
D811	L-3	Q800	L-2
(D812)	K-12	(Q801)	B-12
(D813)	K-11	Q802	D-13
(D814)	D-14	Q803	L-4
(D900)	C-12	(Q804)	L-4
D901	C-8	Q806	L-4
(D902)	D-13	Q807	E-13
D904	H-4	Q900	G-5
D905	C-8	Q901	D-12
D906	D-6	Q902	F-6
(D907)	D-12	Q903	H-4
		Q904	C-7
IC1	E-2	Q905	H-5
IC50	H-2	Q906	H-5
IC100	D-8	Q907	I-5
IC302	E-10		

( ) : SIDE B

【MAIN BOARD】(SIDE A)

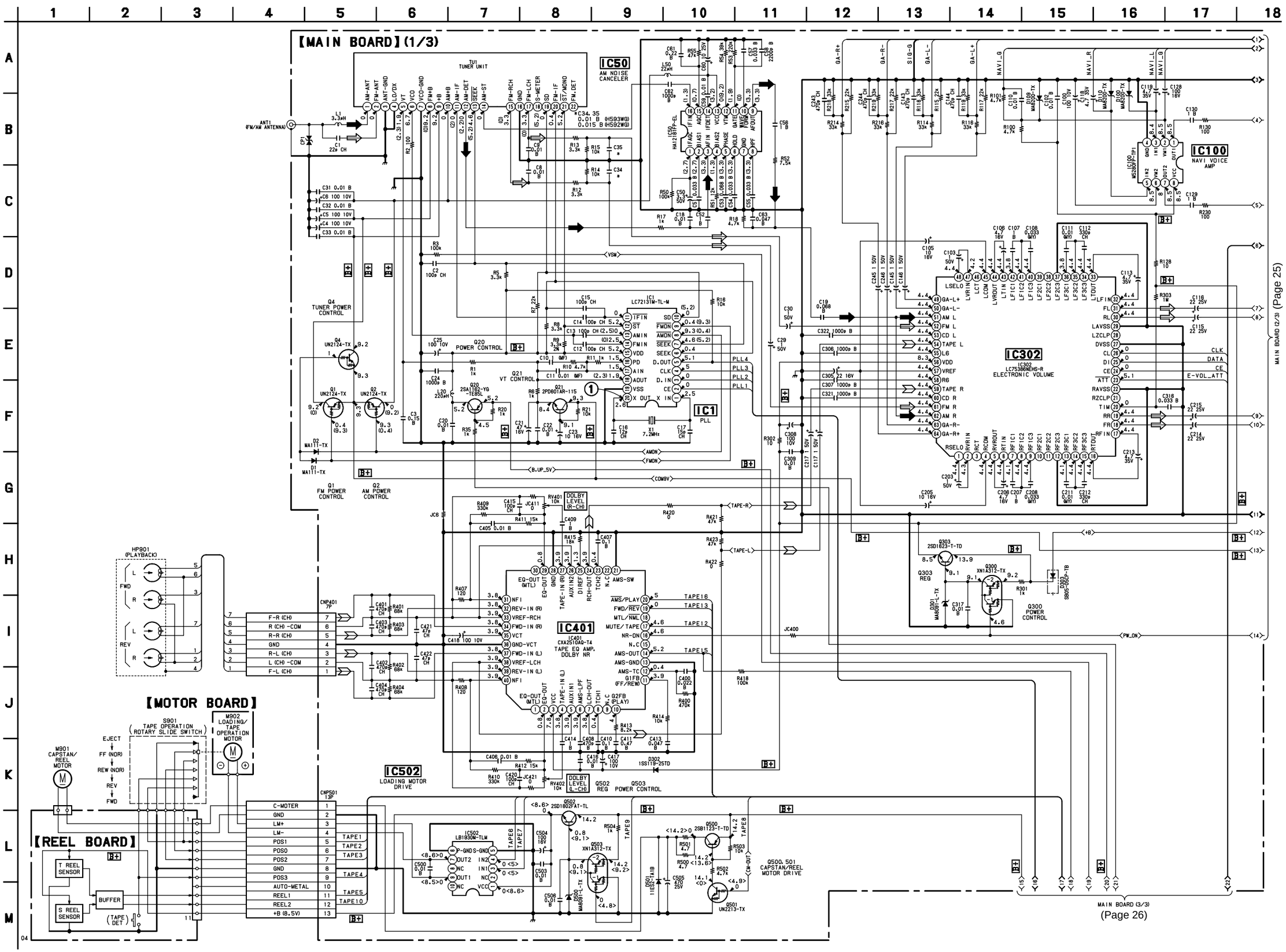


【MAIN BOARD】(SIDE B)

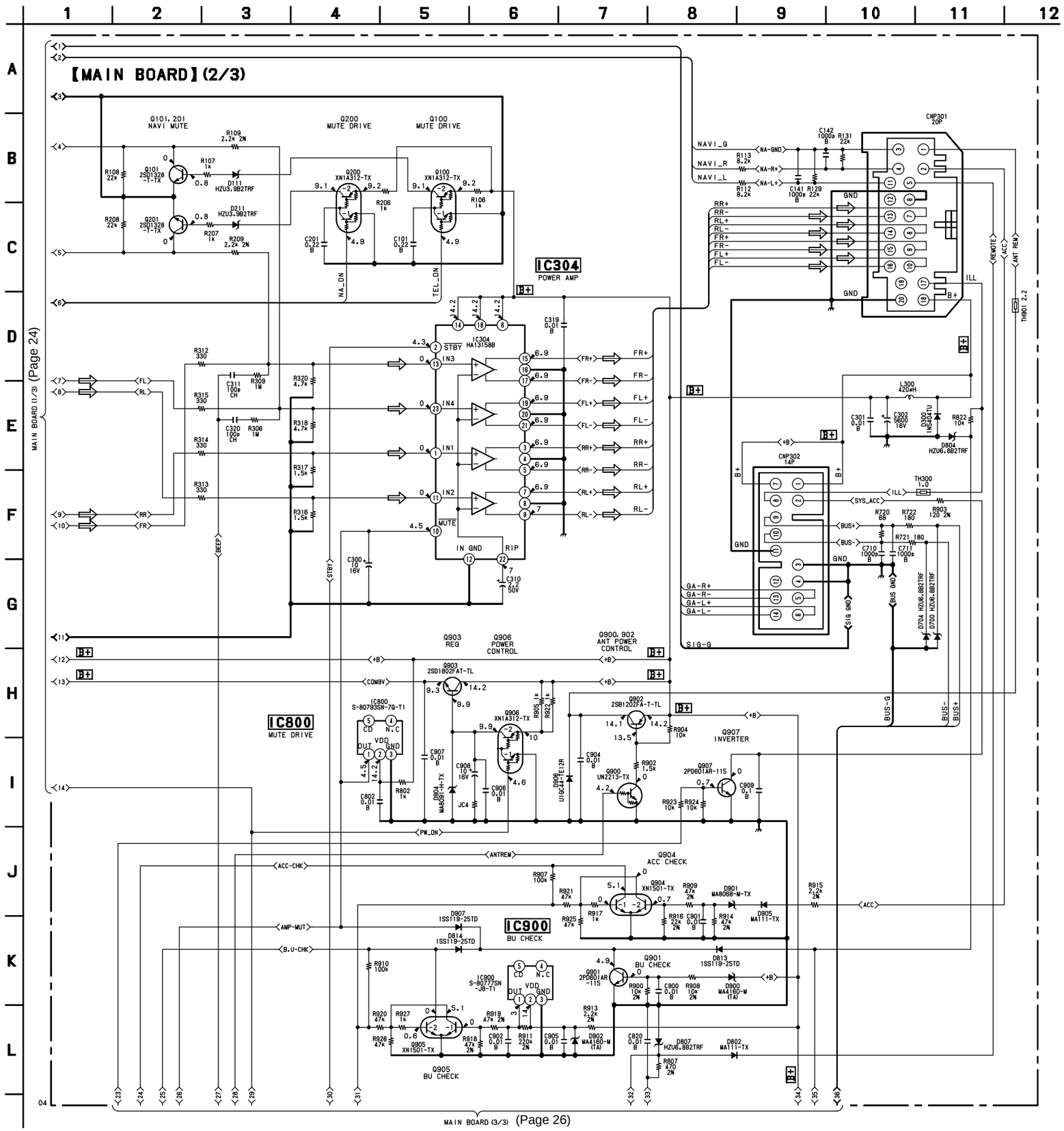


5-5. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) —

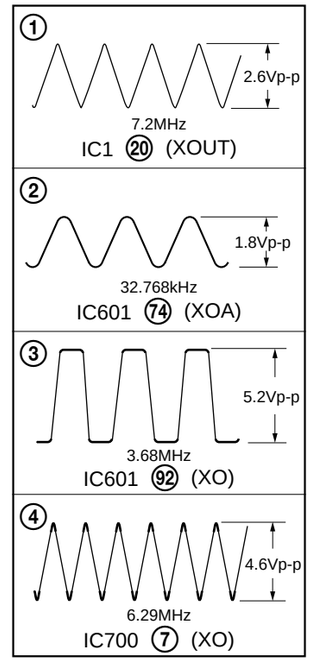
• Refer to page 25 for Waveforms.
• Refer to page 29 for IC Block Diagrams.



5-6. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) —

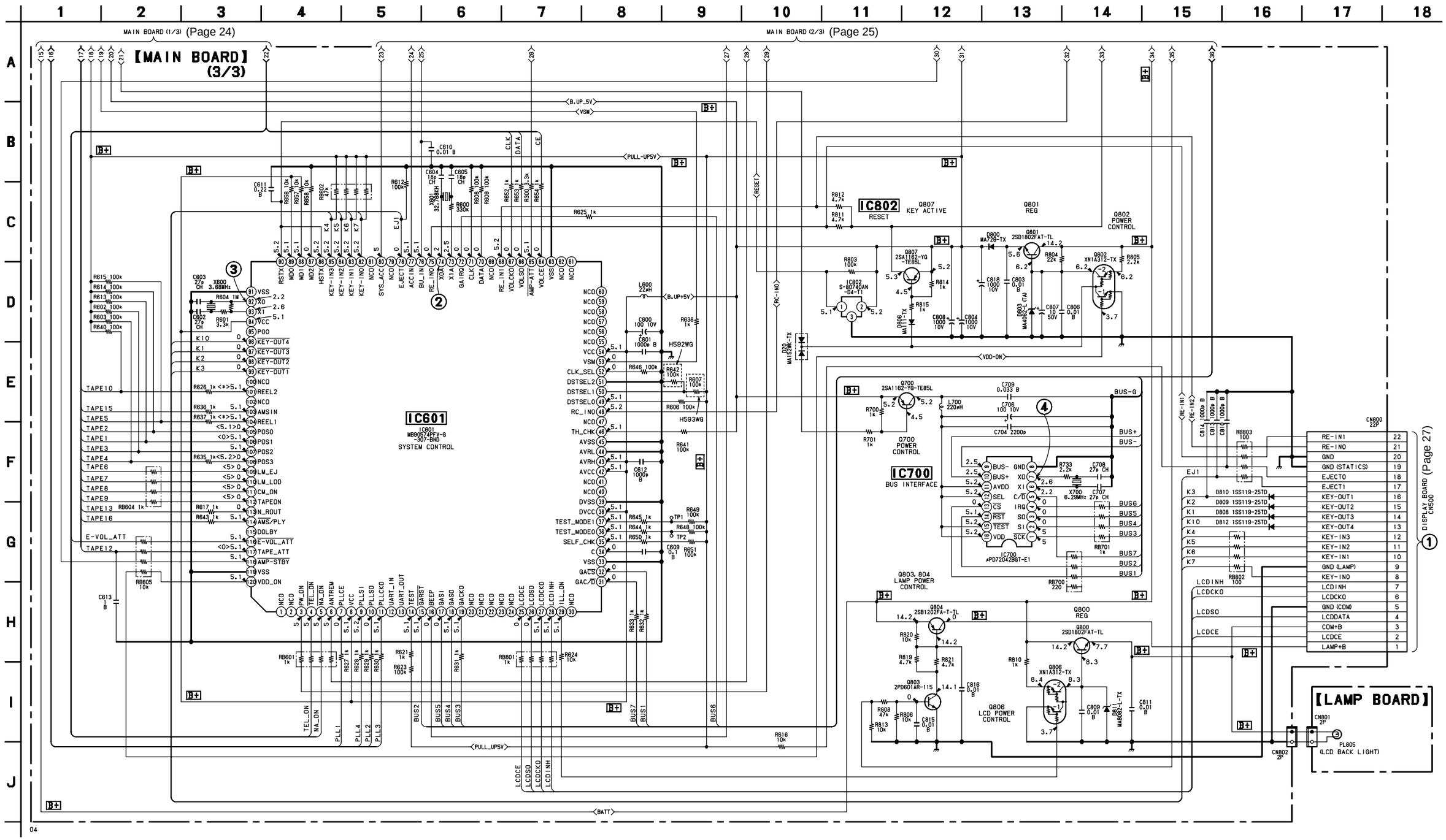


• **Waveforms**

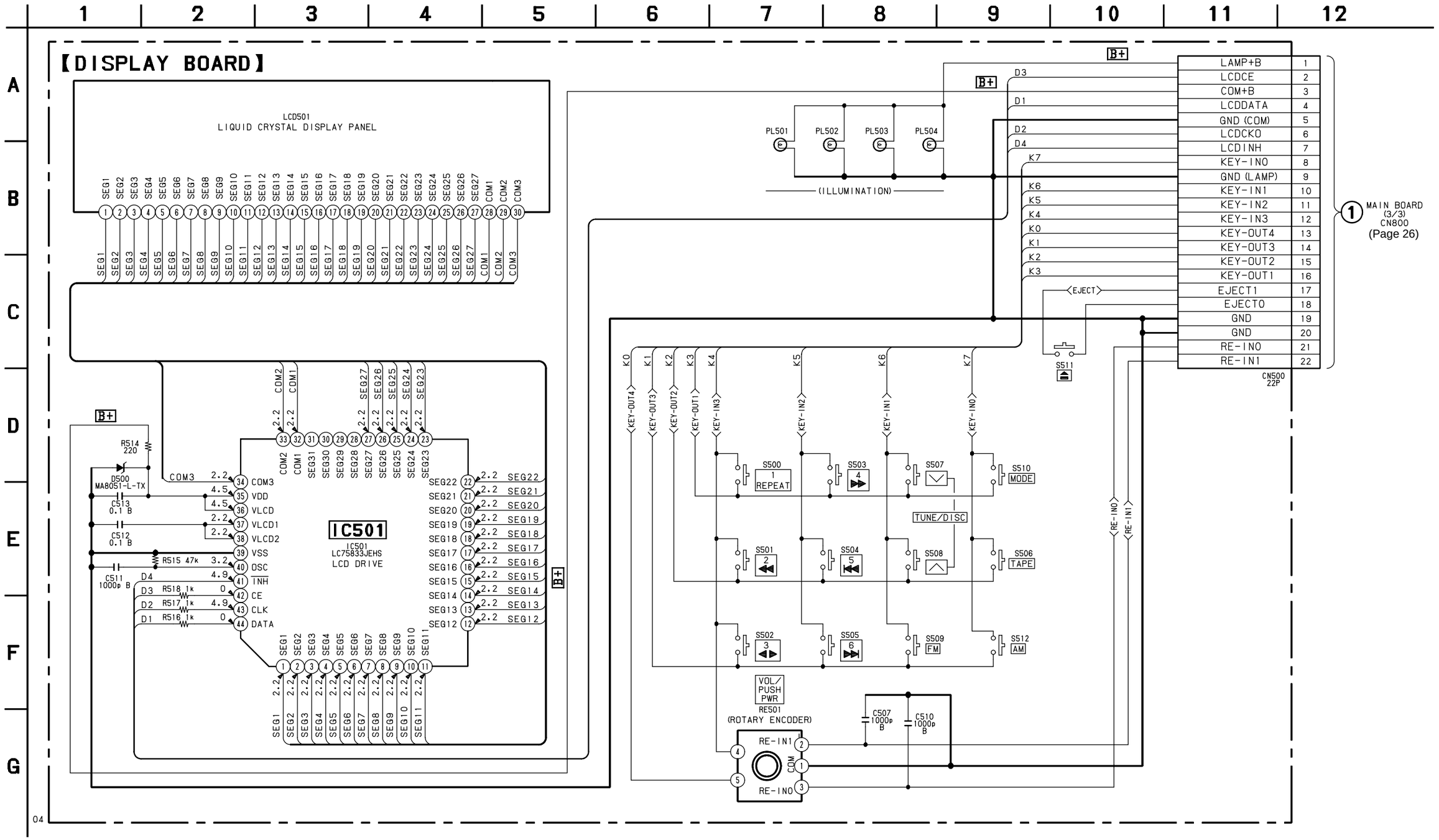


5-7. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) —

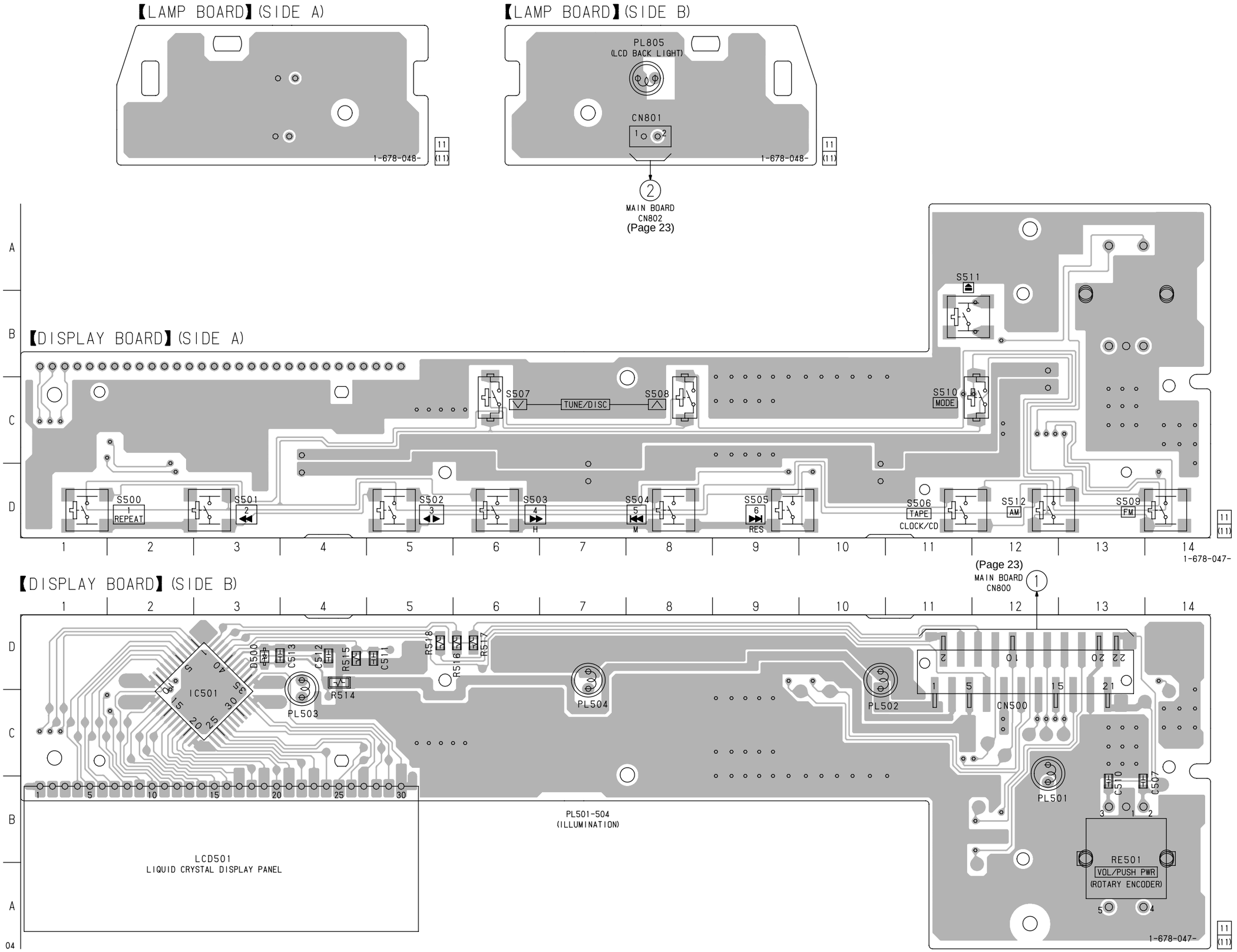
• Refer to page 25 for Waveforms.
• Refer to page 29 for IC Block Diagrams.



5-8. SCHEMATIC DIAGRAM — DISPLAY SECTION —

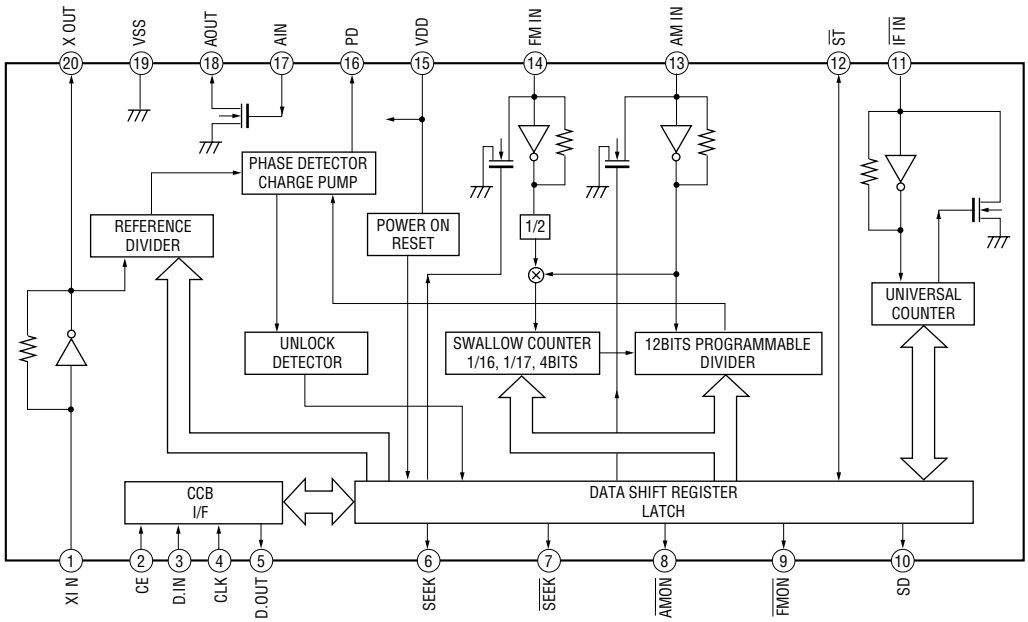


5-9. PRINTED WIRING BOARDS — DISPLAY SECTION —

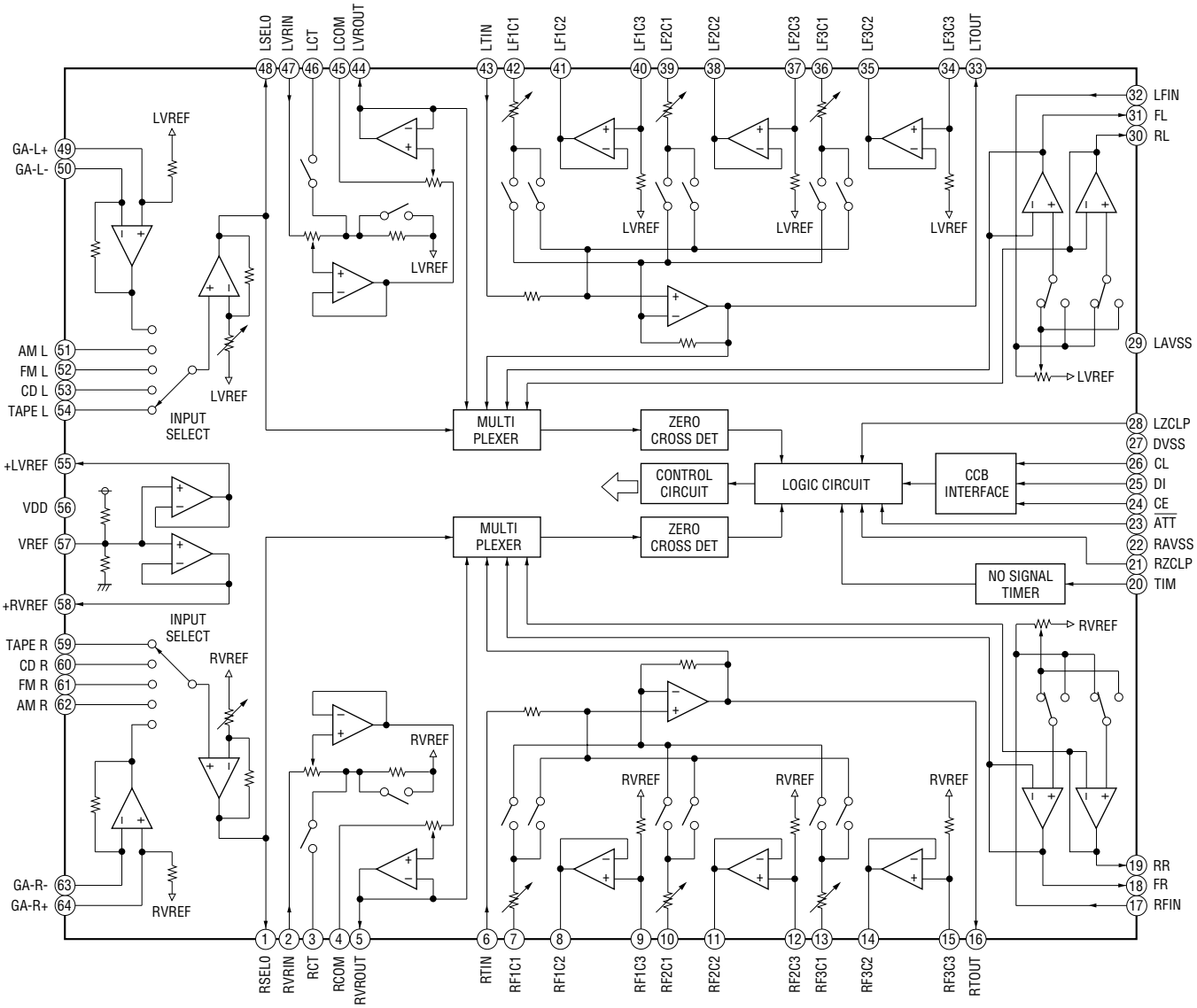


• IC Block Diagrams

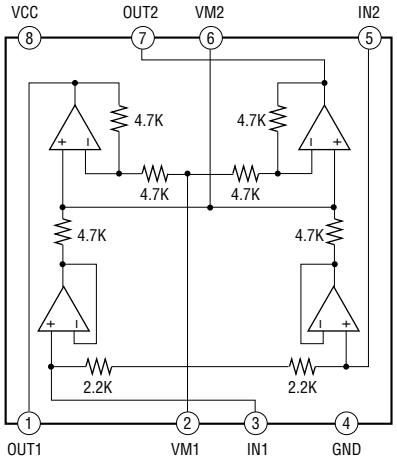
IC1 LC72131M-TL-M



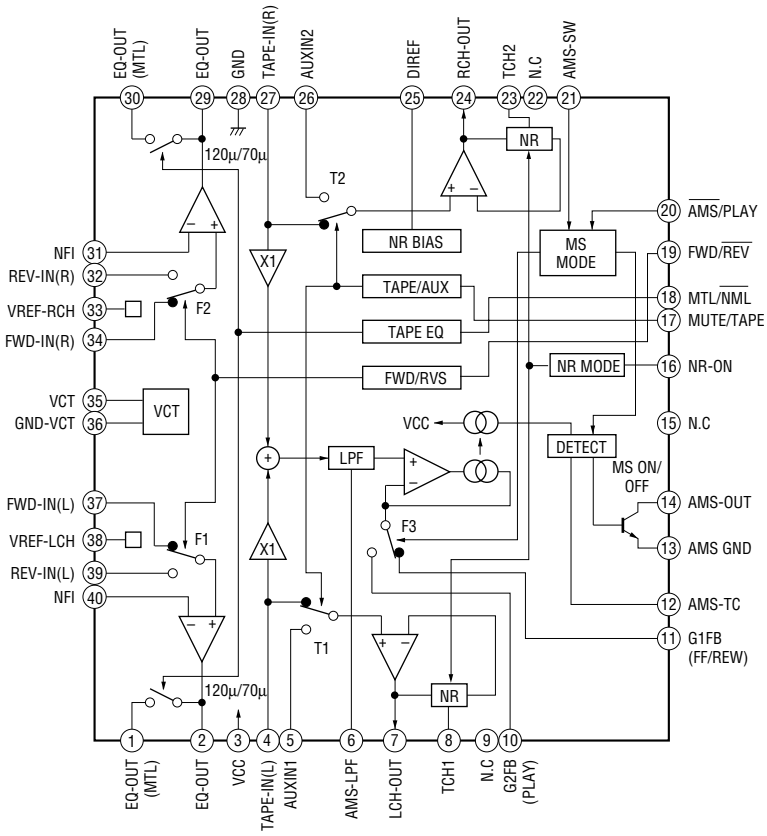
IC302 LC75384NEHS-R



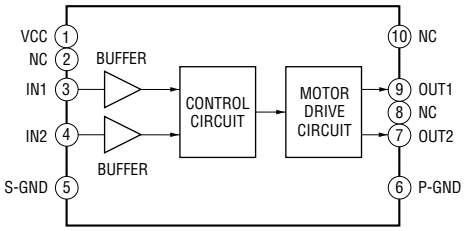
IC100 M5280FP-TP1



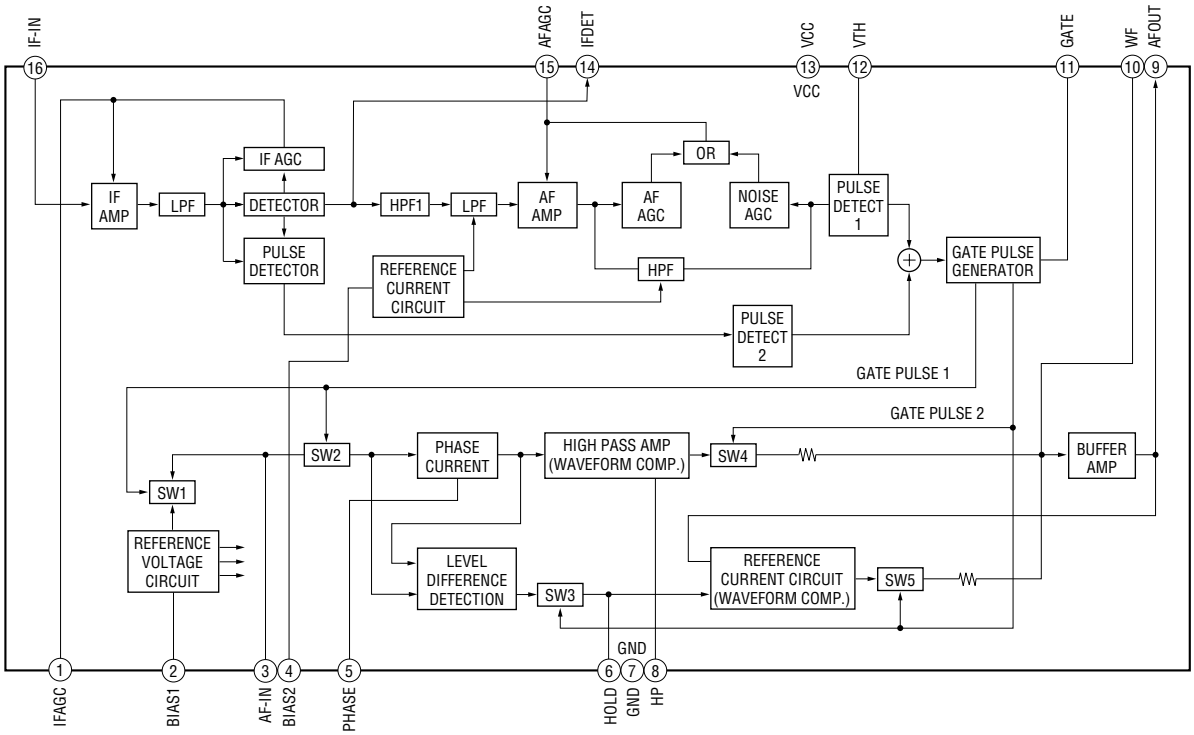
IC401 CXA2510AQ-T4



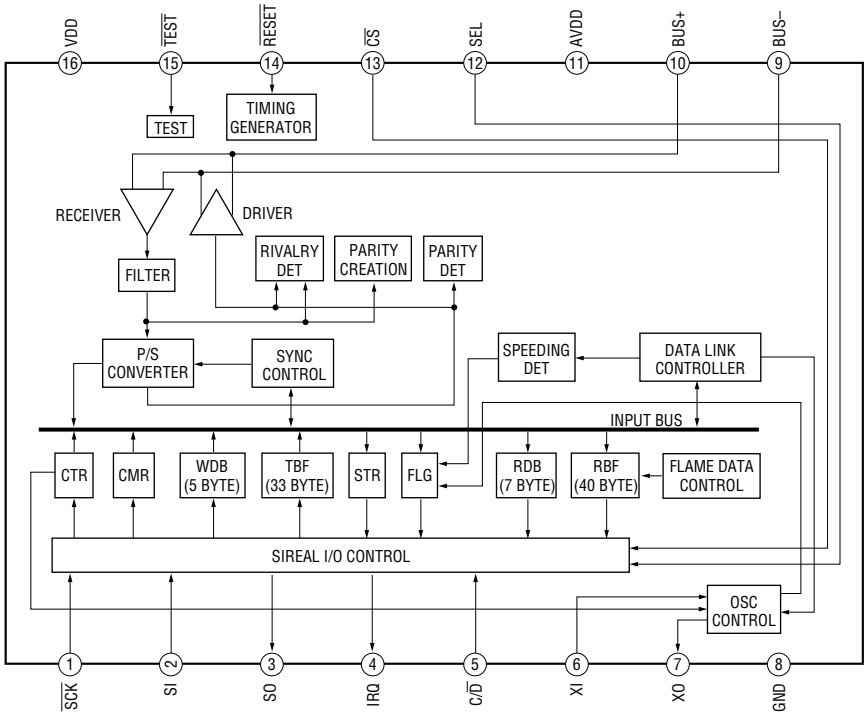
IC502 LB1930M-TLM



IC50 HA12181FP-EL



IC700 µPD72042BGT-E1



5-10. IC PIN DESCRIPTION

• IC601 MB90574PFV-G-307-BND (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1, 2	NCO	O	Not used in the set.
3	PW ON	O	Power ON control output
4	$\overline{\text{TEL ON}}$	O	TEL audio output permission pin
5	$\overline{\text{NA ON}}$	O	NAVI audio output permission pin
6	ANTREM	O	Antenna remote output
7	PLLCE	O	PLL IC chip enable output
8	VCC	—	Power supply pin (+5 V)
9	PLLSI	I	PLL IC serial data input
10	PLLSO	O	PLL IC serial data output
11	PLLCKO	O	PLL IC serial clock output
12	UART IN	I	External equipment to communication data input
13	UART OUT	O	External equipment to communication data output
14	TEST	I	External equipment to communication request input
15	$\overline{\text{GARST}}$	O	GA-NET reset output
16	BEEP	O	BEEP control output
17	GASI	I	GA-NET serial data input
18	GASO	O	GA-NET serial data output
19	GACKO	O	GA-NET serial clock input
20 – 24	NCO	O	Not used in the set.
25	LCDCE	O	LCD driver chip enable output
26	LCDSO	O	LCD driver serial data output
27	LCDCKO	O	LCD driver serial clock output
28	LCDINH	O	LCD blank indication control output
29	ILL ON	O	Illumination power control output
30	NCO	O	Not used in the set.
31	GAC/$\overline{\text{D}}$	O	GA-NET mode select output
32	GA$\overline{\text{CS}}$	O	GA-NET chip select output
33	VSS	—	GND
34	C	—	Power stabilization capacitor pin
35	SELF CHK	I	Self diagnosis mode input
36, 37	TEST MODE0,1	I	Test mode input 0, 1
38	DVCC	—	Power supply pin (+5 V)
39	DVSS	—	GND
40, 41	NCO	O	Not used in the set.
42	AVCC	—	Power supply pin (+5 V)
43	AVRH	I	VREF+ input
44	AVRL	I	VREF– input
45	AVSS	—	GND
46	TH CHK	I	Temperature detect input
47	NCO	O	Not used in the set.
48	RC IN0	I	Steering remote control input
49	DSTSEL0	I	Destination select input 0 (Fixed at “H” in this set.)
50	DSTSEL1	I	Destination select input 1 (“H” : H593WG, “L” : H592WG)
51	DSTSEL2	I	Destination select input 2 (Fixed at “L” in this set.)
52	CLK SEL	I	Clock function with/without setting input (Fixed at “H” in this set.)
53	VSM	I	S-Meter voltage detection input
54	VCC	—	Power supply pin (+5 V)
55 – 62	NCO	O	Not used in the set.
63	VSS	—	GND
64	VOLCE	O	Electric volume chip enable output
65	$\overline{\text{AMP-ATT}}$	O	Power amplifier mute control output

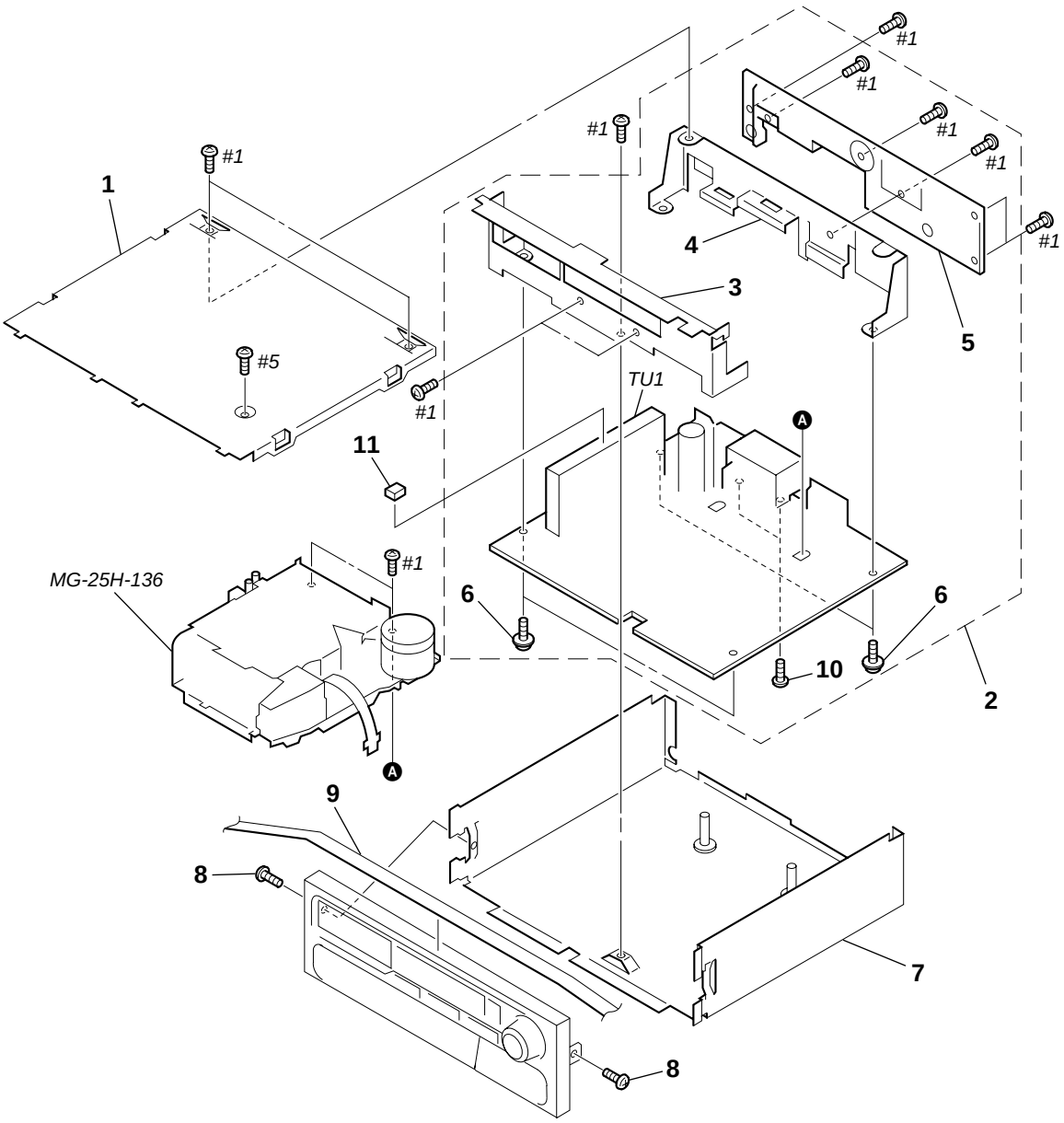
Pin No.	Pin Name	I/O	Pin Description
66	VOLSO	O	Electric volume serial data output
67	VOLCKO	O	Electric volume serial clock output
68	RE IN1	I	Rotary encoder input
69	NCO	O	Not used in the set.
70	DATA	I/O	EEPROM data input/output
71	CLK	I/O	EEPROM clock input/output
72	GAIRQ	I	GA-NET interrupt request input
73, 74	X1A, X0A	—	Sub crystal oscillation input (32.768 kHz)
75	RE IN0	I	Rotary encoder input
76	BU IN	I	Back-up power detection input
77	ACCIN	I	Accessory power detection input
78	EJECT	I	EJECT button detection input
79	NCO	O	Not used in the set.
80	SYS ACC	O	GA-NET to system accessory output
81	NCO	O	Not used in the set.
82 – 85	KEY-IN0 – 3	I	Key input 0 – 3
86	HSTX	—	Hardware stand-by input
87 – 89	MD2 – 0	I	Action mode reserved input 2 – 0
90	RSTX	I	Reset input
91	VSS	—	GND
92, 93	X0, 1	—	Main crystal oscillation input 0, 1 (3.68 MHz)
94	VCC	—	Power supply pin (+5 V)
95	P00	O	Not used in the set.
96 – 99	$\overline{\text{KEY-OUT4}}$ – 1	O	Key output 4 – 1
100	NCO	O	Not used in the set.
101	REEL2	I	Tape reel table reverse rotary detection input
102	NCO	O	Not used in the set.
103	AMSIN	I	Tape AMS music detection input
104	REEL1	I	Tape reel table rotation detection input
105 – 108	POS0 – 3	I	Tape position detection input 0 – 3
109	LM EJ	O	Tape loading motor control output (Eject direction)
110	LM LOD	O	Tape loading motor control output (Loading direction)
111	CM ON	O	Tape capstan motor control output
112	TAPEON	O	Tape power control output
113	N ROUT	O	FWD/REV detection output
114	$\overline{\text{AMS}}$/PLY	O	Tape AMS music control pin
115	DOLBY	O	Tape DOLBY control output (Not used in the set.)
116	$\overline{\text{E-VOL ATT}}$	O	Electric volume attenuator control output
117	TAPE ATT	O	Tape attenuator control output
118	$\overline{\text{AMP-STBY}}$	O	Power amplifier standby control output
119	VSS	—	GND
120	VDD ON	O	Power control output

SECTION 6
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Hardware (# mark) list are given in the last of this parts list.

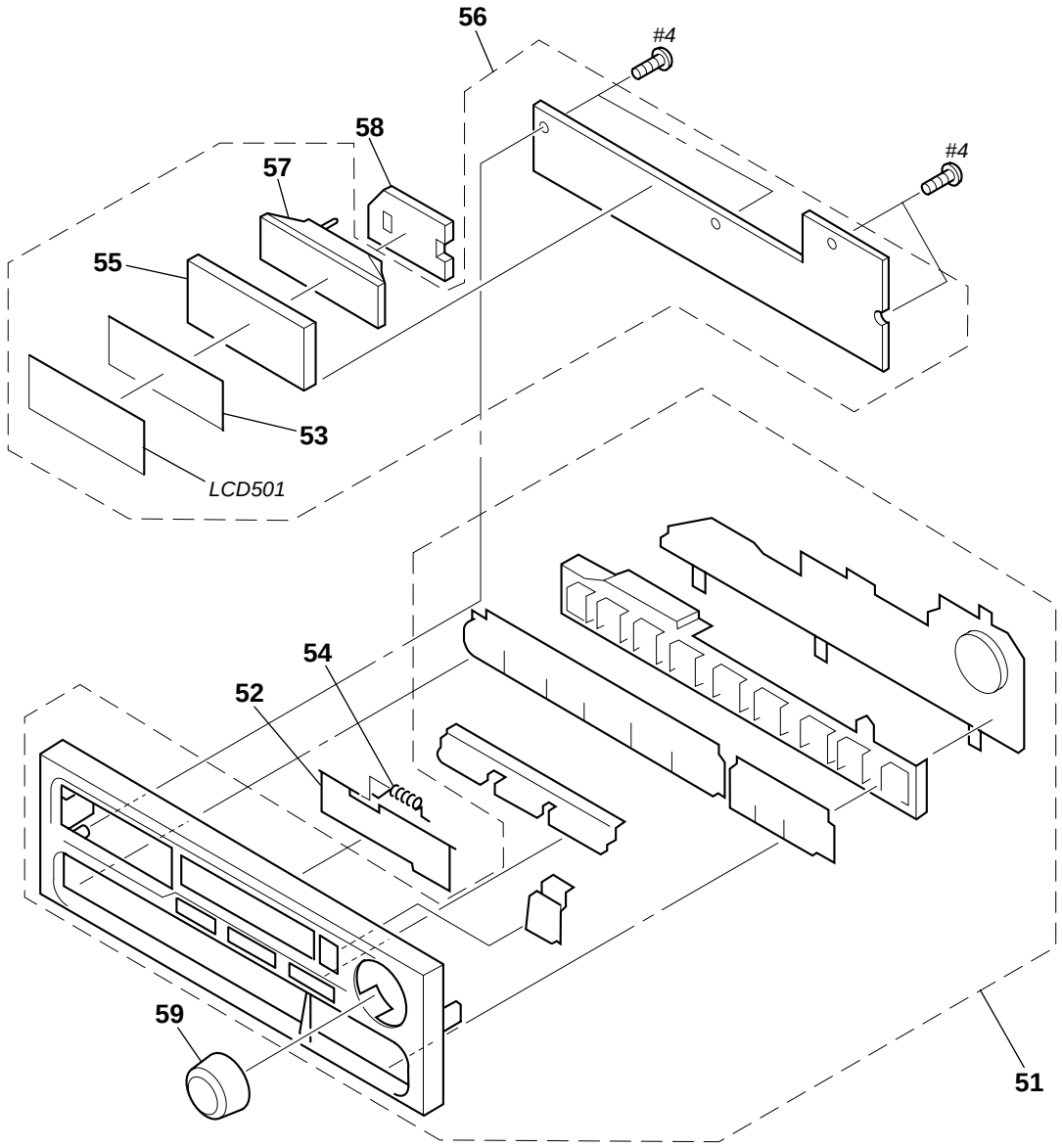
6-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
* 1	3-024-508-01	COVER	
* 2	A-3326-411-A	MAIN BOARD, COMPLETE (H593WG)	
* 2	A-3326-413-A	MAIN BOARD, COMPLETE (H592WG)	
* 3	3-024-511-01	BRACKET (F)	
* 4	3-024-512-01	BRACKET (R)	
* 5	3-024-507-01	HEAT SINK	
6	3-027-135-02	SCREW, IT	

Ref. No.	Part No.	Description	Remark
* 7	X-3375-492-4	CHASSIS ASSY	
8	3-925-347-11	SCREW (TP)	
9	3-029-356-01	RUBBER	
10	3-028-302-01	SCREW (3X6) (SN-N4), +PTP	
11	3-324-384-01	CUSHION, MOTHER	
TU1	A-3282-044-A	TUNER UNIT (TUX-006/2Z(E))	

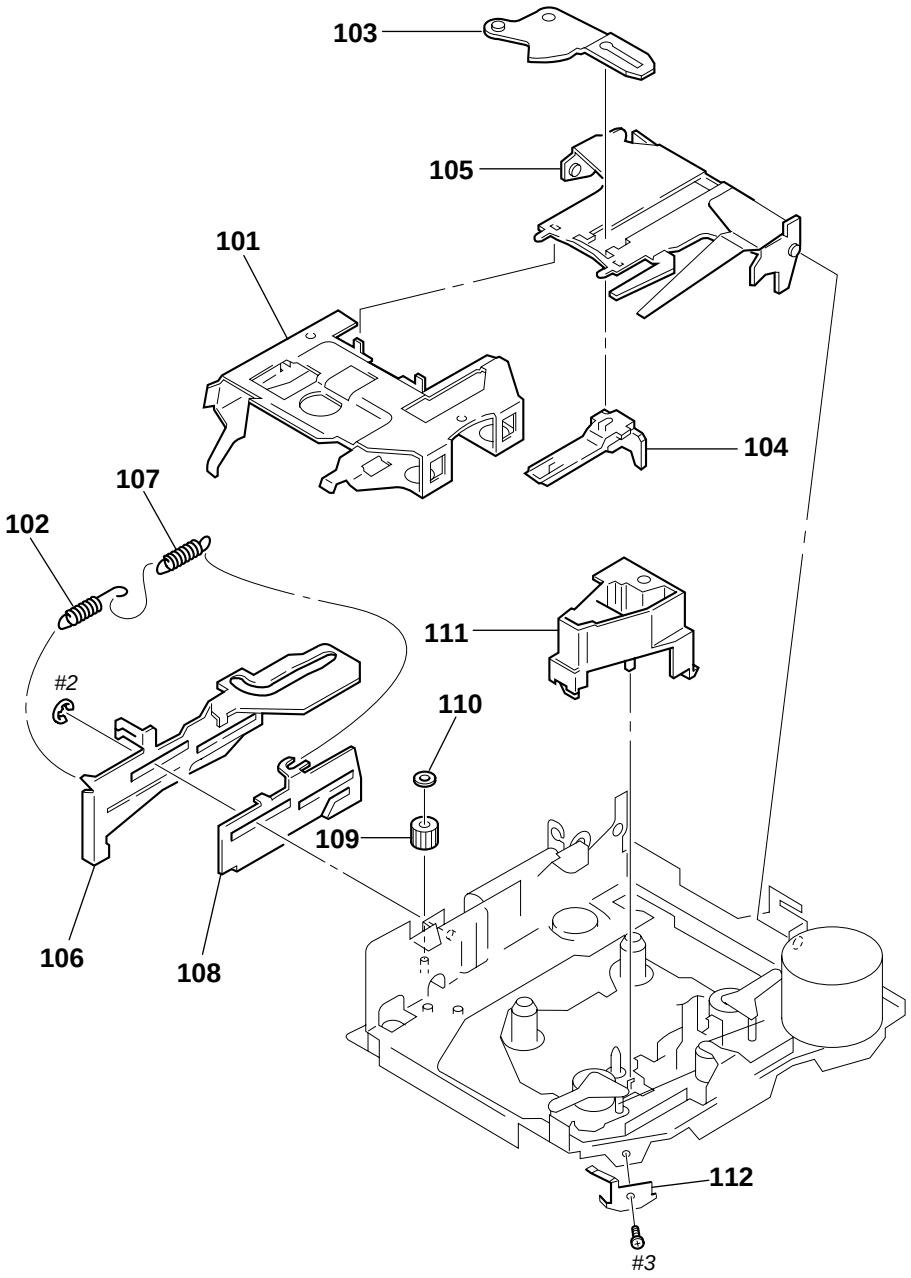
6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-3378-778-1	PANEL ASSY, FRONT	
52	3-046-114-11	DOOR, CASSETTE (H593WG)	
52	3-046-114-21	DOOR, CASSETTE (H592WG)	
* 53	3-041-637-01	ILLUMINATOR	
54	3-024-513-11	SPRING (C DOOR)	
* 55	3-024-506-01	HOLDER (F)	

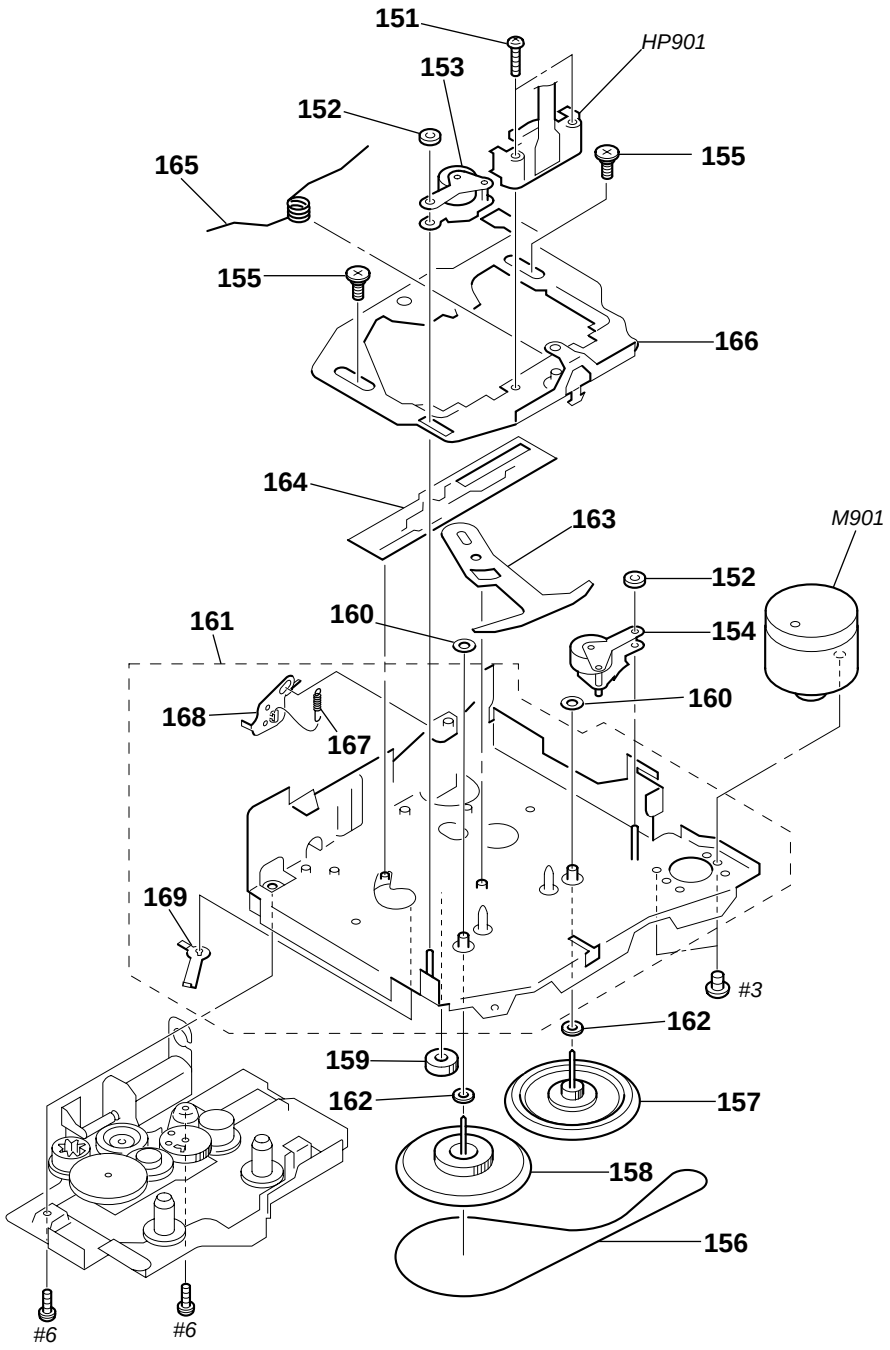
Ref. No.	Part No.	Description	Remark
* 56	A-3326-409-A	DISPLAY BOARD, COMPLETE	
* 57	3-024-505-01	HOLDER (B)	
* 58	1-678-048-11	LAMP BOARD	
59	X-3375-494-2	KNOB ASSY	
LCD501	1-803-837-11	DISPLAY PANEL, LIQUID CRYSTAL	

6-3. MECHANISM DECK SECTION (1)
(MG-25H-136)



Ref. No.	Part No.	Description	Remark
101	3-020-533-01	HOUSING	
102	3-026-165-01	SPRING (LD-1), TENSION	
103	X-3376-155-2	ARM (SUCTION) ASSY	
104	X-3375-975-2	CATCHER ASSY	
105	X-3379-539-1	HANGER ASSY	
* 106	3-019-131-05	LEVER (LDG-B)	
107	3-026-166-01	SPRING (LD-2), TENSION	
* 108	3-019-130-01	LEVER (LDG-A)	
109	3-020-542-01	GEAR (LOADING FT)	
110	3-341-753-11	WASHER, POLYETHYLENE	
111	3-933-344-11	GUIDE (C)	
112	3-036-915-03	SPRING, HEAD BASE RETAINER	

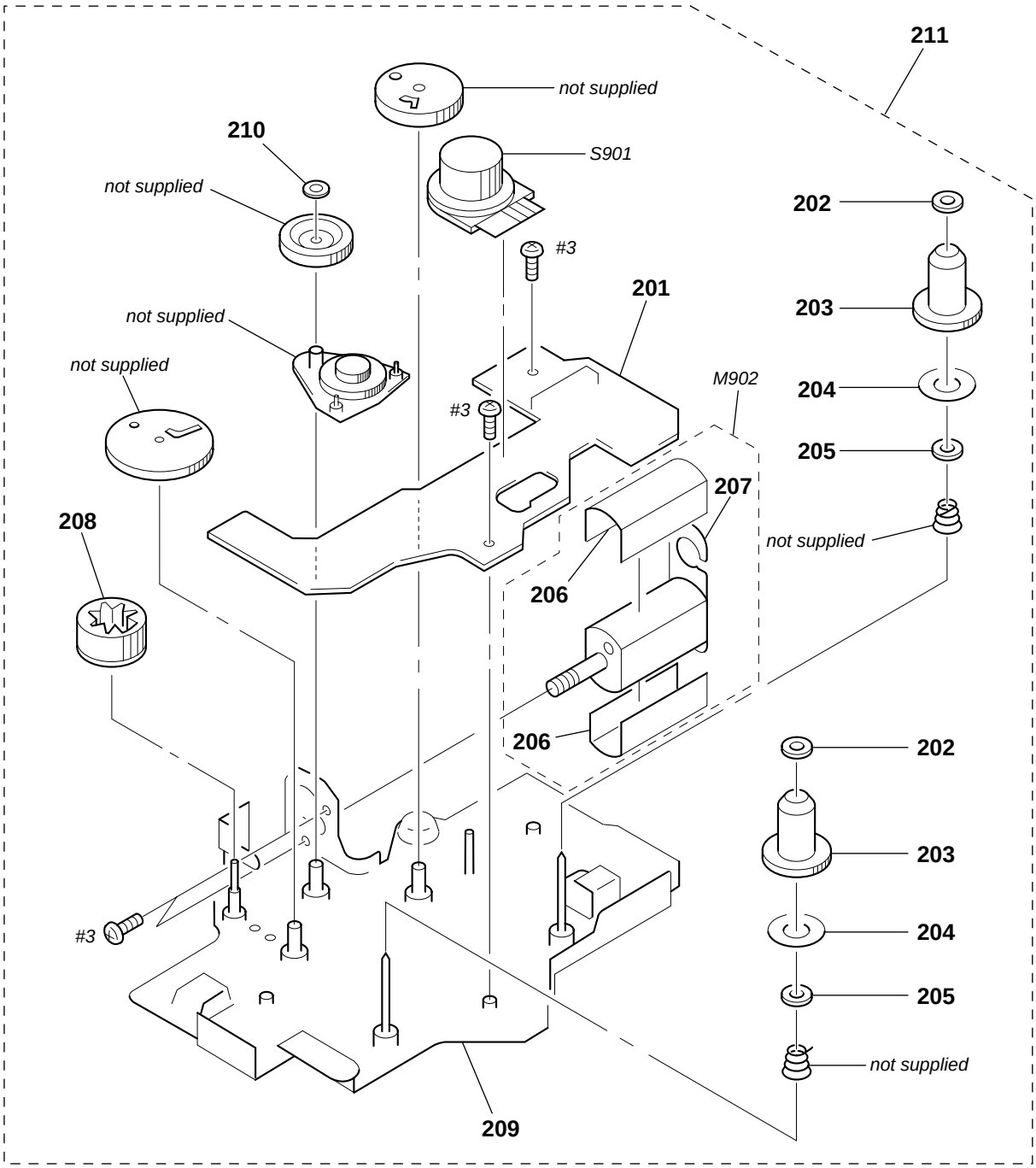
6-4. MECHANISM DECK SECTION (2)
(MG-25H-136)



Ref. No.	Part No.	Description	Remark
151	3-014-798-01	SCREW (HEAD), SPECIAL	
152	3-031-573-01	WASHER (PINCH)	
153	X-3370-977-2	LEVER (PINCH R) ASSY	
154	X-3370-976-2	LEVER (PINCH F) ASSY	
155	3-034-660-01	SCREW (HP2), STEP	
156	3-017-302-01	BELT (25)	
157	3-026-636-01	FLYWHEEL (F)	
158	X-3375-691-1	CLUTCH (FR) ASSY	
159	3-025-692-01	GEAR (RVS)	
160	3-364-151-01	WASHER	
* 161	X-3375-759-6	CHASSIS (M) ASSY (H)	

Ref. No.	Part No.	Description	Remark
162	3-701-437-21	WASHER	
163	3-008-877-01	LEVER (PINCH SELECTION)	
164	3-032-826-04	LEVER (MODE)	
165	3-008-891-02	SPRING (PINCH PRESS)	
166	X-3373-087-3	PLATE ASSY, HEAD	
167	3-008-857-02	SPRING (ARM HANGER), TENSION	
168	3-009-244-12	ARM (HANGER)	
169	3-018-983-01	SPRING (LEVER RELAY A)	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3301-813-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

6-5. MECHANISM DECK SECTION (3)
(MG-25H-136)



Ref. No.	Part No.	Description	Remark
* 201	1-670-448-11	REEL BOARD	
202	3-026-190-01	WASHER (REEL)	
203	3-025-709-01	GEAR, REEL	
204	3-025-714-01	SEAL, REFLECTION	
205	3-010-630-01	WASHER (TEFLON)	
206	3-031-111-01	PLATE (LD), SHIELD	
* 207	1-672-221-11	MOTOR BOARD	
208	3-020-538-02	GEAR (LDG-FB)	
* 209	X-3374-717-5	CHASSIS (S) SUB ASSY	
210	3-579-788-01	WASHER, STOPPER	
* 211	A-3301-814-A	CHASSIS (S) ASSY	
M902	A-3301-815-A	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)	
S901	1-692-885-21	SWITCH, ROTARY SLIDE (TAPE OPERATION)	

SECTION 7
ELECTRICAL PARTS LIST

DISPLAY | LAMP | MAIN

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3326-409-A	DISPLAY BOARD, COMPLETE			
		**********			
*	3-024-505-01	HOLDER (B)			
*	3-024-506-01	HOLDER (F)			
*	3-041-637-01	ILLUMINATOR			
		< CAPACITOR >			
C507	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C510	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C511	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C512	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C513	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CN500	1-770-985-11	HOUSING, CONNECTOR (PC BOARD) 22P			
		< DIODE >			
D500	8-719-422-41	DIODE MA8051-L-TX			
		< IC >			
IC501	8-759-527-32	IC LC75833JEHS			
		< LIQUID CRYSTAL DISPLAY >			
LCD501	1-803-837-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< PILOT LAMP >			
PL501	1-517-939-11	LAMP, PILOT (14V) (ILLUMINATION)			
PL502	1-517-939-11	LAMP, PILOT (14V) (ILLUMINATION)			
PL503	1-517-939-11	LAMP, PILOT (14V) (ILLUMINATION)			
PL504	1-517-939-11	LAMP, PILOT (14V) (ILLUMINATION)			
		< RESISTOR >			
R514	1-216-182-00	RES-CHIP	220	2%	1/8W
R515	1-208-526-41	RES-CHIP	47K	2%	1/10W
R516	1-208-437-41	RES-CHIP	1K	2%	1/10W
R517	1-208-437-41	RES-CHIP	1K	2%	1/10W
R518	1-208-437-41	RES-CHIP	1K	2%	1/10W
		< ROTARY ENCODER >			
RE501	1-475-653-11	ENCODER, ROTARY (VOL/PUSH PWR)			
		< SWITCH >			
S500	1-771-428-12	SWITCH, TACTILE (1/REPEAT)			
S501	1-771-428-12	SWITCH, TACTILE (2/ ◀◀)			
S502	1-771-428-12	SWITCH, TACTILE (3/ ◀▶)			
S503	1-771-428-12	SWITCH, TACTILE (4/ ▶▶)			
S504	1-771-428-12	SWITCH, TACTILE (5/ I◀◀)			
S505	1-771-428-12	SWITCH, TACTILE (6/ ▶▶I)			
S506	1-771-428-12	SWITCH, TACTILE (TAPE)			
S507	1-762-357-11	SWITCH (TUNE/DISC ∨)			
S508	1-762-357-11	SWITCH (TUNE/DISC ∧)			
S509	1-771-428-12	SWITCH, TACTILE (FM)			
S510	1-762-357-11	SWITCH (MODE)			
S511	1-771-428-12	SWITCH, TACTILE (⏏)			
S512	1-771-428-12	SWITCH, TACTILE (AM)			
**********					
*	1-678-048-11	LAMP BOARD			
		**********			
		< CONNECTOR >			
* CN801	1-506-998-11	PIN, CONNECTOR (PC BOARD) 2P			
		< PILOT LAMP >			
PL805	1-517-938-11	LAMP, PILOT (8V) (LCD BACK LIGHT)			
**********					
*	A-3326-411-A	MAIN BOARD, COMPLETE (H593WG)			
*	A-3326-413-A	MAIN BOARD, COMPLETE (H592WG)			
		**********			
*	3-024-507-01	HEAT SINK			
*	3-024-511-01	BRACKET (F)			
*	3-024-512-01	BRACKET (R)			
	3-027-135-02	SCREW, IT			
	3-028-302-01	SCREW (3X6) (SN-N4), +PTP			
	7-621-284-20	SCREW +P 2.6X6			
		< CAPACITOR >			
C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C4	1-104-665-11	ELECT	100uF	20%	10V
C5	1-104-665-11	ELECT	100uF	20%	10V
C6	1-104-665-11	ELECT	100uF	20%	10V
C8	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C9	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C10	1-115-338-11	MYLAR	1uF	5%	50V
C11	1-136-153-00	FILM	0.01uF	5%	50V
C12	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C13	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C14	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C15	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C16	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C17	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C18	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C19	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C20	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C21	1-124-589-11	ELECT	47uF	20%	16V
C22	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C23	1-124-233-11	ELECT	10uF	20%	16V
C24	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C25	1-124-584-00	ELECT	100uF	20%	10V
C29	1-126-160-11	ELECT	1uF	20%	50V
C30	1-126-160-11	ELECT	1uF	20%	50V
C31	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C32	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C33	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C34	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (H593WG)
C34	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V (H592WG)
C35	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (H593WG)
C35	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V (H592WG)
C50	1-115-873-11	ELECT	3.3uF	20%	50V
C51	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C52	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C53	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C54	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C55	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C56	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C57	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C58	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C59	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C60	1-126-795-11	ELECT	10uF	20%	25V
C61	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C62	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C63	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C100	1-124-584-00	ELECT	100uF	20%	10V
C101	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C102	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C103	1-126-160-11	ELECT	1uF	20%	50V
C105	1-124-233-11	ELECT	10uF	20%	16V
C106	1-124-259-11	ELECT	4.7uF	20%	16V
C107	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C108	1-136-159-00	FILM	0.033uF	5%	50V
C110	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C111	1-136-153-00	FILM	0.01uF	5%	50V
C112	1-163-263-11	CERAMIC CHIP	330PF	5%	50V

Ref. No.	Part No.	Description			Remark
C113	1-115-866-11	ELECT	4.7uF	20%	35V
C115	1-128-551-11	ELECT	22uF	20%	25V
C116	1-128-551-11	ELECT	22uF	20%	25V
C117	1-126-160-11	ELECT	1uF	20%	50V
C118	1-115-866-11	ELECT	4.7uF	20%	35V
C119	1-115-866-11	ELECT	4.7uF	20%	35V
C128	1-126-382-11	ELECT	100uF	20%	16V
C129	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C130	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C141	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C142	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C143	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C144	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C145	1-126-160-11	ELECT	1uF	20%	50V
C146	1-126-160-11	ELECT	1uF	20%	50V
C201	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C203	1-126-160-11	ELECT	1uF	20%	50V
C205	1-124-233-11	ELECT	10uF	20%	16V
C206	1-124-259-11	ELECT	4.7uF	20%	16V
C207	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C208	1-136-159-00	FILM	0.033uF	5%	50V
C211	1-136-153-00	FILM	0.01uF	5%	50V
C212	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C213	1-115-866-11	ELECT	4.7uF	20%	35V
C214	1-128-551-11	ELECT	22uF	20%	25V
C215	1-128-551-11	ELECT	22uF	20%	25V
C217	1-126-160-11	ELECT	1uF	20%	50V
C243	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C244	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C245	1-126-160-11	ELECT	1uF	20%	50V
C246	1-126-160-11	ELECT	1uF	20%	50V
C300	1-124-233-11	ELECT	10uF	20%	16V
C301	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C302	1-111-233-21	ELECT	5600uF	20%	16V
C305	1-124-234-00	ELECT	22uF	20%	16V
C306	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C307	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C308	1-124-584-00	ELECT	100uF	20%	10V
C309	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C310	1-107-903-11	ELECT	2.2uF	20%	50V
C311	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C316	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C317	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C319	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C320	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C321	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C322	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C400	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C401	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C402	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C403	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C404	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C405	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V

Ref. No.	Part No.	Description			Remark
C406	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C407	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C408	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C409	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C410	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C411	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C413	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C414	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C415	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C416	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C417	1-124-584-00	ELECT	100uF	20%	10V
C418	1-124-584-00	ELECT	100uF	20%	10V
C420	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C421	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C422	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C500	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C503	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C504	1-126-933-11	ELECT	100uF	20%	16V
C505	1-126-941-11	ELECT	470uF	20%	25V
C506	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C600	1-124-584-00	ELECT	100uF	20%	10V
C601	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C602	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C603	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C604	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C605	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C609	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C610	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C611	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C612	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C613	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C704	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C706	1-124-584-00	ELECT	100uF	20%	10V
C707	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C708	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C709	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C710	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C711	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C802	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C803	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C804	1-107-877-11	ELECT	1000uF	20%	10V
C806	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C807	1-126-964-11	ELECT	10uF	20%	50V
C808	1-107-877-11	ELECT	1000uF	20%	10V
C809	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C810	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C811	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C813	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C814	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C815	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C816	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C818	1-107-877-11	ELECT	1000uF	20%	10V
C820	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V

Ref. No.	Part No.	Description			Remark
C900	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C901	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C902	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C904	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C905	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C906	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C907	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C908	1-124-233-11	ELECT	10uF	20%	16V
C909	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CN800	1-770-987-11	PIN, CONNECTOR (PC BOARD) 22P			
* CN802	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P			
CNP301	1-784-611-11	PIN, CONNECTOR 20P			
CNP302	1-784-610-11	PIN, CONNECTOR (PC BOARD) 14P			
CNP401	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P			
* CNP501	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P			
		< DISCHARGE GAP >			
CP1	1-803-335-21	ABSORBER, CHIP SURGE			
		< DIODE >			
D1	8-719-073-01	DIODE	MA111-TX		
D2	8-719-073-01	DIODE	MA111-TX		
D20	8-719-801-78	DIODE	MA152WK-TX		
D100	8-719-017-98	DIODE	MA8200-TX		
D109	8-719-017-98	DIODE	MA8200-TX		
D110	8-719-017-98	DIODE	MA8200-TX		
D111	8-719-062-38	DIODE	HZU3.92TRF		
D211	8-719-062-38	DIODE	HZU3.92TRF		
D300	8-719-049-38	DIODE	1N5404TU		
D301	8-719-422-94	DIODE	MA8091-L-TX		
D302	8-719-911-19	DIODE	1SS119-25TD		
D303	8-719-938-75	DIODE	SB05-05CP-TB		
D500	8-719-422-94	DIODE	MA8091-L-TX		
D501	8-719-200-82	DIODE	11ES2-TA1B		
D700	8-719-064-08	DIODE	HZU6.8B2TRF		
D704	8-719-064-08	DIODE	HZU6.8B2TRF		
D800	8-719-420-51	DIODE	MA729-TX		
D802	8-719-073-01	DIODE	MA111-TX		
D803	8-719-035-73	DIODE	MA4062-L(TA)		
D804	8-719-064-08	DIODE	HZU6.8B2TRF		
D806	8-719-073-01	DIODE	MA111-TX		
D807	8-719-064-08	DIODE	HZU6.8B2TRF		
D808	8-719-911-19	DIODE	1SS119-25TD		
D809	8-719-911-19	DIODE	1SS119-25TD		
D810	8-719-911-19	DIODE	1SS119-25TD		
D811	8-719-422-86	DIODE	MA8082-L-TX		
D812	8-719-911-19	DIODE	1SS119-25TD		
D813	8-719-911-19	DIODE	1SS119-25TD		
D814	8-719-911-19	DIODE	1SS119-25TD		
D900	8-719-034-90	DIODE	MA4160-M(TA)		

MAIN

Ref. No.	Part No.	Description	Remark
D901	8-719-977-12	DIODE MA8068-M-TX	
D902	8-719-034-90	DIODE MA4160-M(TA)	
D904	8-719-422-97	DIODE MA8091-H-TX	
D905	8-719-073-01	DIODE MA111-TX	
D906	8-719-019-00	DIODE U1GC44-TE12R	
D907	8-719-911-19	DIODE 1SS119-25TD	
		< IC >	
IC1	8-759-346-57	IC LC72131M-TL-M	
IC50	8-759-367-11	IC HA12181FP-EL	
IC100	8-759-631-00	IC M5280FP-TP1	
IC302	8-759-583-37	IC LC75386NEHS-R	
IC304	8-759-670-83	IC HA13158B	
IC401	8-752-079-79	IC CXA2510AQ-T4	
IC502	8-759-527-33	IC LB1930M-TLM	
IC601	8-759-696-66	IC MB90574PFV-G-307-BND	
IC700	8-759-525-55	IC uPD72042BGT-E1	
IC800	8-759-449-22	IC S-80793SN-7Q-T1	
IC802	8-759-503-60	IC S-80740AN-D4-T1	
IC900	8-759-170-19	IC S-80777SN-J8-T1	
		< JUMPER RESISTOR >	
JC4	1-216-295-11	SHORT 0	
JC6	1-216-295-11	SHORT 0	
JC400	1-216-295-11	SHORT 0	
JC411	1-216-295-11	SHORT 0	
JC421	1-216-295-11	SHORT 0	
		< COIL >	
L1	1-410-375-11	INDUCTOR CHIP 3.3uH	
L20	1-410-979-11	INDUCTOR 220uH	
L50	1-414-400-11	INDUCTOR 22uH	
L300	1-416-729-11	INDUCTOR 420uH	
L600	1-410-973-11	INDUCTOR 22uH	
L700	1-410-979-11	INDUCTOR 220uH	
		< TRANSISTOR >	
Q1	8-729-425-02	TRANSISTOR UN2124-TX	
Q2	8-729-425-02	TRANSISTOR UN2124-TX	
Q4	8-729-425-02	TRANSISTOR UN2124-TX	
Q20	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q21	8-729-422-33	TRANSISTOR 2PD601AR-115	
Q100	8-729-020-67	TRANSISTOR XN1A312-TX	
Q101	8-729-400-56	TRANSISTOR 2SD1328-T-TX	
Q200	8-729-020-67	TRANSISTOR XN1A312-TX	
Q201	8-729-400-56	TRANSISTOR 2SD1328-T-TX	
Q300	8-729-020-67	TRANSISTOR XN1A312-TX	
Q303	8-729-807-52	TRANSISTOR 2SD1623-T-TD	
Q500	8-729-807-35	TRANSISTOR 2SB1123-T-TD	
Q501	8-729-421-19	TRANSISTOR UN2213-TX	
Q502	8-729-807-12	TRANSISTOR 2SD1802FAT-TL	
Q503	8-729-020-67	TRANSISTOR XN1A312-TX	

Ref. No.	Part No.	Description	Remark
Q700	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q800	8-729-807-12	TRANSISTOR 2SD1802FAT-TL	
Q801	8-729-807-12	TRANSISTOR 2SD1802FAT-TL	
Q802	8-729-020-67	TRANSISTOR XN1A312-TX	
Q803	8-729-422-33	TRANSISTOR 2PD601AR-115	
Q804	8-729-019-03	TRANSISTOR 2SB1202FA-T-TL	
Q806	8-729-020-67	TRANSISTOR XN1A312-TX	
Q807	8-729-216-22	TRANSISTOR 2SA1162-YG-TE85L	
Q900	8-729-421-19	TRANSISTOR UN2213-TX	
Q901	8-729-422-33	TRANSISTOR 2PD601AR-115	
Q902	8-729-019-03	TRANSISTOR 2SB1202FA-T-TL	
Q903	8-729-807-12	TRANSISTOR 2SD1802FAT-TL	
Q904	8-729-402-13	TRANSISTOR XN1501-TX	
Q905	8-729-402-13	TRANSISTOR XN1501-TX	
Q906	8-729-020-67	TRANSISTOR XN1A312-TX	
Q907	8-729-422-33	TRANSISTOR 2PD601AR-115	
		< RESISTOR >	
R1	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R2	1-216-025-11	RES-CHIP 100 5% 1/10W	
R3	1-216-097-11	RES-CHIP 100K 5% 1/10W	
R5	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R6	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R7	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R8	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R9	1-216-210-00	RES-CHIP 3.3K 2% 1/8W	
R10	1-216-065-11	RES-CHIP 4.7K 5% 1/10W	
R11	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R12	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R13	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R14	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R15	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R16	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R17	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R18	1-216-065-11	RES-CHIP 4.7K 5% 1/10W	
R20	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R21	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R35	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R50	1-216-097-11	RES-CHIP 100K 5% 1/10W	
R51	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R52	1-216-070-00	METAL CHIP 7.5K 5% 1/10W	
R53	1-216-105-11	RES-CHIP 220K 5% 1/10W	
R54	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R55	1-216-089-11	RES-CHIP 47K 5% 1/10W	
R100	1-216-065-11	RES-CHIP 4.7K 5% 1/10W	
R101	1-216-065-11	RES-CHIP 4.7K 5% 1/10W	
R106	1-216-198-11	RES-CHIP 1K 5% 1/8W	
R107	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R108	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R109	1-208-445-41	RES-CHIP 2.2K 2% 1/10W	
R112	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R113	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R114	1-216-085-00	METAL CHIP 33K 5% 1/10W	

Ref. No.	Part No.	Description			Remark
R115	1-216-081-00	METAL CHIP	22K	5%	1/10W
R116	1-216-085-00	METAL CHIP	33K	5%	1/10W
R117	1-216-081-00	METAL CHIP	22K	5%	1/10W
R118	1-216-085-00	METAL CHIP	33K	5%	1/10W
R119	1-216-085-00	METAL CHIP	33K	5%	1/10W
R128	1-216-001-00	METAL CHIP	10	5%	1/10W
R129	1-216-081-00	METAL CHIP	22K	5%	1/10W
R130	1-216-025-11	RES-CHIP	100	5%	1/10W
R131	1-216-081-00	METAL CHIP	22K	5%	1/10W
R206	1-216-198-11	RES-CHIP	1K	5%	1/8W
R207	1-216-049-11	RES-CHIP	1K	5%	1/10W
R208	1-216-081-00	METAL CHIP	22K	5%	1/10W
R209	1-208-445-41	RES-CHIP	2.2K	2%	1/10W
R214	1-216-085-00	METAL CHIP	33K	5%	1/10W
R215	1-216-081-00	METAL CHIP	22K	5%	1/10W
R216	1-216-085-00	METAL CHIP	33K	5%	1/10W
R217	1-216-081-00	METAL CHIP	22K	5%	1/10W
R218	1-216-085-00	METAL CHIP	33K	5%	1/10W
R219	1-216-085-00	METAL CHIP	33K	5%	1/10W
R230	1-216-025-11	RES-CHIP	100	5%	1/10W
R300	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R301	1-216-198-11	RES-CHIP	1K	5%	1/8W
R302	1-216-150-11	RES-CHIP	10	5%	1/8W
R303	1-216-121-11	RES-CHIP	1M	5%	1/10W
R306	1-216-270-00	RES-CHIP	1M	5%	1/8W
R309	1-216-270-00	RES-CHIP	1M	5%	1/8W
R312	1-216-186-00	RES-CHIP	330	5%	1/8W
R313	1-216-186-00	RES-CHIP	330	5%	1/8W
R314	1-216-186-00	RES-CHIP	330	5%	1/8W
R315	1-216-186-00	RES-CHIP	330	5%	1/8W
R316	1-216-202-00	RES-CHIP	1.5K	5%	1/8W
R317	1-216-202-00	RES-CHIP	1.5K	5%	1/8W
R318	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R320	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R400	1-216-113-00	METAL CHIP	470K	5%	1/10W
R401	1-216-093-11	RES-CHIP	68K	5%	1/10W
R402	1-216-093-11	RES-CHIP	68K	5%	1/10W
R403	1-216-093-11	RES-CHIP	68K	5%	1/10W
R404	1-216-093-11	RES-CHIP	68K	5%	1/10W
R407	1-216-027-00	METAL CHIP	120	5%	1/10W
R408	1-216-027-00	METAL CHIP	120	5%	1/10W
R409	1-216-109-00	METAL CHIP	330K	5%	1/10W
R410	1-216-109-00	METAL CHIP	330K	5%	1/10W
R411	1-216-077-11	RES-CHIP	15K	5%	1/10W
R412	1-216-077-11	RES-CHIP	15K	5%	1/10W
R413	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R414	1-216-073-00	METAL CHIP	10K	5%	1/10W
R415	1-216-079-00	METAL CHIP	18K	5%	1/10W
R418	1-216-097-11	RES-CHIP	100K	5%	1/10W
R420	1-216-295-11	SHORT	0		
R421	1-216-089-11	RES-CHIP	47K	5%	1/10W
R422	1-216-295-11	SHORT	0		
R423	1-216-089-11	RES-CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R500	1-249-389-11	CARBON	4.7	5%	1/4W
R501	1-249-389-11	CARBON	4.7	5%	1/4W
R502	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R503	1-216-073-00	METAL CHIP	10K	5%	1/10W
R504	1-216-049-11	RES-CHIP	1K	5%	1/10W
R600	1-216-109-00	METAL CHIP	330K	5%	1/10W
R601	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R602	1-216-097-11	RES-CHIP	100K	5%	1/10W
R603	1-216-845-11	METAL CHIP	100K	5%	1/16W
R604	1-216-121-11	RES-CHIP	1M	5%	1/10W
R606	1-216-097-11	RES-CHIP	100K	5%	1/10W
R607	1-216-097-11	RES-CHIP	100K	5%	1/10W (H593WG)
R608	1-216-845-11	METAL CHIP	100K	5%	1/16W
R609	1-216-845-11	METAL CHIP	100K	5%	1/16W
R612	1-216-097-11	RES-CHIP	100K	5%	1/10W
R613	1-216-097-11	RES-CHIP	100K	5%	1/10W
R614	1-216-097-11	RES-CHIP	100K	5%	1/10W
R615	1-216-097-11	RES-CHIP	100K	5%	1/10W
R616	1-216-073-00	METAL CHIP	10K	5%	1/10W
R617	1-216-821-11	METAL CHIP	1K	5%	1/16W
R621	1-216-821-11	METAL CHIP	1K	5%	1/16W
R623	1-216-097-11	RES-CHIP	100K	5%	1/10W
R624	1-216-833-11	METAL CHIP	10K	5%	1/16W
R625	1-216-049-11	RES-CHIP	1K	5%	1/10W
R626	1-216-821-11	METAL CHIP	1K	5%	1/16W
R627	1-216-049-11	RES-CHIP	1K	5%	1/10W
R628	1-216-049-11	RES-CHIP	1K	5%	1/10W
R629	1-216-049-11	RES-CHIP	1K	5%	1/10W
R630	1-216-049-11	RES-CHIP	1K	5%	1/10W
R631	1-216-049-11	RES-CHIP	1K	5%	1/10W
R632	1-216-821-11	METAL CHIP	1K	5%	1/16W
R633	1-216-821-11	METAL CHIP	1K	5%	1/16W
R635	1-216-821-11	METAL CHIP	1K	5%	1/16W
R636	1-216-049-11	RES-CHIP	1K	5%	1/10W
R637	1-216-821-11	METAL CHIP	1K	5%	1/16W
R638	1-216-049-11	RES-CHIP	1K	5%	1/10W
R640	1-216-097-11	RES-CHIP	100K	5%	1/10W
R641	1-216-246-00	RES-CHIP	100K	5%	1/8W
R642	1-216-097-11	RES-CHIP	100K	5%	1/10W (H592WG)
R643	1-216-821-11	METAL CHIP	1K	5%	1/16W
R644	1-216-821-11	METAL CHIP	1K	5%	1/16W
R645	1-216-821-11	METAL CHIP	1K	5%	1/16W
R646	1-216-097-11	RES-CHIP	100K	5%	1/10W
R648	1-216-845-11	METAL CHIP	100K	5%	1/16W
R649	1-216-845-11	METAL CHIP	100K	5%	1/16W
R650	1-216-821-11	METAL CHIP	1K	5%	1/16W
R651	1-216-246-00	RES-CHIP	100K	5%	1/8W
R652	1-216-821-11	METAL CHIP	1K	5%	1/16W
R653	1-216-821-11	METAL CHIP	1K	5%	1/16W
R654	1-216-821-11	METAL CHIP	1K	5%	1/16W
R656	1-216-073-00	METAL CHIP	10K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R657	1-216-073-00	METAL CHIP	10K	5%	1/10W
R658	1-216-073-00	METAL CHIP	10K	5%	1/10W
R700	1-216-049-11	RES-CHIP	1K	5%	1/10W
R701	1-216-049-11	RES-CHIP	1K	5%	1/10W
R720	1-249-403-11	CARBON	68	5%	1/4W
R721	1-249-408-11	CARBON	180	5%	1/4W
R722	1-249-408-11	CARBON	180	5%	1/4W
R733	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R802	1-216-049-11	RES-CHIP	1K	5%	1/10W
R803	1-216-097-11	RES-CHIP	100K	5%	1/10W
R804	1-216-081-00	METAL CHIP	22K	5%	1/10W
R805	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R806	1-216-073-00	METAL CHIP	10K	5%	1/10W
R807	1-208-774-11	RES-CHIP	470	2%	1/10W
R808	1-216-089-11	RES-CHIP	47K	5%	1/10W
R810	1-249-417-11	CARBON	1K	5%	1/4W
R811	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R812	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R813	1-216-073-00	METAL CHIP	10K	5%	1/10W
R814	1-216-049-11	RES-CHIP	1K	5%	1/10W
R815	1-216-049-11	RES-CHIP	1K	5%	1/10W
R819	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R820	1-216-073-00	METAL CHIP	10K	5%	1/10W
R821	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R822	1-216-073-00	METAL CHIP	10K	5%	1/10W
R900	1-208-462-41	RES-CHIP	10K	2%	1/10W
R902	1-249-419-11	CARBON	1.5K	5%	1/4W
R903	1-208-415-41	RES-CHIP	120	2%	1/8W
R904	1-216-073-00	METAL CHIP	10K	5%	1/10W
R905	1-216-049-11	RES-CHIP	1K	5%	1/10W
R907	1-216-097-11	RES-CHIP	100K	5%	1/10W
R908	1-208-462-41	RES-CHIP	10K	2%	1/10W
R909	1-218-887-11	RES-CHIP	47K	2%	1/16W
R910	1-216-097-11	RES-CHIP	100K	5%	1/10W
R911	1-218-760-11	RES-CHIP	220K	2%	1/10W
R913	1-208-445-41	RES-CHIP	2.2K	2%	1/10W
R914	1-218-887-11	RES-CHIP	47K	2%	1/16W
R915	1-216-206-00	RES-CHIP	2.2K	2%	1/8W
R916	1-218-879-11	RES-CHIP	22K	2%	1/16W
R917	1-216-049-11	RES-CHIP	1K	5%	1/10W
R918	1-208-526-41	RES-CHIP	47K	2%	1/10W
R919	1-208-526-41	RES-CHIP	47K	2%	1/10W
R920	1-216-089-11	RES-CHIP	47K	5%	1/10W
R921	1-216-089-11	RES-CHIP	47K	5%	1/10W
R922	1-216-049-11	RES-CHIP	1K	5%	1/10W
R923	1-216-833-11	METAL CHIP	10K	5%	1/16W
R924	1-216-073-00	METAL CHIP	10K	5%	1/10W
R925	1-216-841-11	METAL CHIP	47K	5%	1/16W
R926	1-216-089-11	RES-CHIP	47K	5%	1/10W
R927	1-216-049-11	RES-CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description	Remark
		< NETWORK RESISTOR >	
RB601	1-233-412-11	RES, CHIP NETWORK 1.0K (3216)	
RB602	1-233-578-11	RES, CHIP NETWORK 47K	
RB604	1-233-412-11	RES, CHIP NETWORK 1.0K (3216)	
RB605	1-236-908-11	RES, CHIP NETWORK 10K (3216)	
RB700	1-233-411-21	RES, CHIP NETWORK 220 (3216)	
RB701	1-233-412-11	RES, CHIP NETWORK 1.0K (3216)	
RB801	1-233-412-11	RES, CHIP NETWORK 1.0K (3216)	
RB802	1-233-576-11	RES, CHIP NETWORK 100	
RB803	1-233-576-11	RES, CHIP NETWORK 100	
		< VARIABLE RESISTOR >	
RV401	1-238-600-11	RES, ADJ, CARBON 10K	
RV402	1-238-600-11	RES, ADJ, CARBON 10K	
		< THERMISTOR (POSITIVE) >	
TH300	1-810-941-11	THERMISTOR, POSITIVE	
TH901	1-810-940-11	THERMISTOR, POSITIVE	
		< TUNER >	
TU1	A-3282-044-A	TUNER UNIT (TUX-006/2Z(E))	
		< VIBRATOR >	
X1	1-577-126-61	VIBRATOR, CRYSTAL (7.2MHz)	
X600	1-767-993-31	VIBRATOR, CRYSTAL (3.68MHz)	
X601	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)	
X700	1-767-812-21	VIBRATOR, CRYSTAL (6.29MHz)	
**********			
		MISCELLANEOUS	
		**********	
* 201	1-670-448-11	REEL BOARD	
* 207	1-672-221-11	MOTOR BOARD	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3301-813-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
M902	A-3301-815-A	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)	
S901	1-692-885-21	SWITCH, ROTARY SLIDE (TAPE OPERATION)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-621-284-20	SCREW +P 2.6X6	
#2	7-624-104-04	STOP RING 2.0, TYPE -E	
#3	7-627-553-17	SCREW, PRECISION +P 2X2 TYPE 3	
#4	7-685-106-19	SCREW +P 2X10 TYPE 2 NON-SLIT	
#5	7-685-134-19	SCREW +P 2.6X8 TYPE 2 NON-SLIT	
#6	7-628-253-00	SCREW +PS 2X4	

Sony Corporation
Audio Entertainment Group

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